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west virginia department of environmental protection

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

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

Monday, July 31, 2023  
WELL WORK PLUGGING PERMIT  
Horizontal 6A Plugging

SWN PRODUCTION COMPANY, LLC  
POST OFFICE BOX 12359

SPRING, TX 773914954

Re: Permit approval for MICHAEL RATCLIFFE OHI 5H  
47-069-00252-00-00

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.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

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

James A. Martin  
Chief

Operator's Well Number: MICHAEL RATCLIFFE OHI 5H  
Farm Name: MICHAEL T. RATCLIFFE  
U.S. WELL NUMBER: 47-069-00252-00-00  
Horizontal 6A Plugging  
Date Issued: 7/31/2023

A handwritten signature in blue ink, appearing to read 'James A. Martin', is written over a small square stamp.

Promoting a healthy environment.

08/04/2023

## PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

### CONDITIONS

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1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.
4. 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.

4706900252P

WW-4B  
Rev. 2/01

1) Date \_\_\_\_\_, 2023  
2) Operator's  
Well No. Michael Ratcliffe OHI 5H  
3) API Well No. 49-080-00252

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

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

- 4) Well Type: Oil \_\_\_\_\_ / Gas  / Liquid injection \_\_\_\_\_ / Waste disposal \_\_\_\_\_ /  
(If "Gas, Production  or Underground storage \_\_\_\_\_) Deep \_\_\_\_\_ / Shallow \_\_\_\_\_
- 5) Location: Elevation 1281' Watershed Upper Ohio South  
District Liberty County Ohio Quadrangle Bethany
- 6) Well Operator SWN Production Co., LLC 7) Designated Agent Brittany Woody  
Address 1300 Fort Pierpont Dr., Suite 201 Address 1300 Fort Pierpont Dr., Suite 201  
Morgantown, WV 26508 Morgantown, WV 26508
- 8) Oil and Gas Inspector to be notified Name Strader Gower 9) Plugging Contractor Name NA  
Address 601 57th Street, SE Address \_\_\_\_\_  
Charleston, WV 25304

10) Work Order: The work order for the manner of plugging this well is as follows:  
See Attachment 1.

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Environmental Protection

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Digitally signed by Gayne Knitowski Date: 2023.05.31 09:25:22 -0400 Date 5-31-2023

08/04/2023

## ATTACHMENT 1

Well Name: Michael Ratcliffe OHI-5H  
API: 47-069-00252  
County/State: Ohio county, WV  
Elevation: 1281 ft  
TD: 126 ft RKB (100 ft below ground level)  
Casing: 100 ft of 20" 94#/ft J55 conductor pipe set at 126 ft RKB

## Comments:

Well removed from development plan due to poor economics or other factors. Pad is still an active location with five existing producing wells.

## Procedure:

1. Drop hose into both conductor and mousehole pipes to vacuum out as much fluid as possible.
2. Dump class A cement from surface (40 bbl into conductor, 20 bbl into mousehole), displacing fluid as cement falls down hole.
3. Take cement sample from conductor at end of job and monitor to confirm it fully sets up.
4. Cut conductor pipe below grade and weld on monument with well name, API #, and P&A date.
5. Cut mousehole pipe below grade and weld on cap.

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DRILL DOWN SUMMARY  
MICHAEL RATCLIFFE OHI 5H  
OHIO COUNTY, WV

DATE	DESCRIPTION
11/13/2017	Permit issued
01/04/2019	Drill and set 20" conductor at 126' (100' pipe ran + 26' KB = 126' RKB), cement to surface. Drill 75' mousehole, cement to surface. Set cellar and cement all.

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State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

API 47-069-00252 County OHIO District LIBERTY  
Quad BETHANY Pad Name MICHAEL RATCLIFFE OHI Field/Pool Name PANHANDLE WET  
Farm name SWN PRODUCTION COMPANY, LLC Well Number MICHAEL RATCLIFFE OHI 5H  
Operator (as registered with the OOG) SWN PRODUCTION COMPANY, LLC  
Address PO BOX 12359 City SPRING State TX Zip 77391-2359

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4 444 323.572 Easting 536 877.014  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing \_\_\_\_\_ Easting \_\_\_\_\_

Elevation (ft) 1,281.1 GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
SOBM

Date permit issued 11/13/2017 Date drilling commenced 1/5/2019 Date drilling ceased 1/5/2019  
Date completion activities began \_\_\_\_\_ Date completion activities ceased \_\_\_\_\_  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug  
Freshwater depth(s) ft 350' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 780' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 590' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by: \_\_\_\_\_

08/04/2023

1) Date: 6/1/23  
2) Operator's Well Number  
Michael Ratcliffe OHI 5H

3) API Well No.: 47 - 069 - 00252

**STATE OF WEST VIRGINIA**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS**  
**NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL**

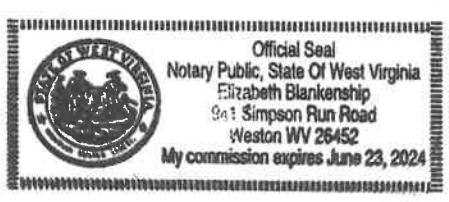
<b>4) Surface Owner(s) to be served:</b>	<b>5) (a) Coal Operator</b>
(a) Name <u>Michael T. Ratcliffe</u>	Name <u>Alliance Resources GP, LLC</u>
Address <u>1069 G C &amp; P Road</u>	Address <u>2596 Battle Run Road</u>
<u>Wheeling, WV 26003</u>	<u>Triadelphia, WV 26059</u>
(b) Name <u>John M. Weitzel</u>	(b) Coal Owner(s) with Declaration
Address <u>395 Longview Road</u>	Name _____
<u>Valley Grove, WV 26060</u>	Address _____
(c) Name _____	Name _____
Address _____	Address _____
<b>6) Inspector</b> <u>Strader Gower</u>	(c) Coal Lessee with Declaration
Address <u>601 57th Street, SE</u>	Name _____
<u>Charleston, WV 25304</u>	Address _____
Telephone <u>304-993-6188</u>	_____

**TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:**

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.



Well Operator	<u>SWN Production Co., LLC</u>	RECEIVED Office Of Oil and Gas
By:	<u>Brittany Woody</u> <i>Brittany Woody</i>	
Its:	<u>Staff Regulatory Specialist</u>	JUN 06 2023
Address	<u>1300 Fort Pierpont Dr., Suite 201</u>	
	<u>Morgantown, WV 26508</u>	WV Department of Environmental Protection
Telephone	<u>304-884-1613</u>	

Subscribed and sworn before me this 2nd day of May 2023  
Elizabeth Blankenship Notary Public  
My Commission Expires 6/23/2024

**Oil and Gas Privacy Notice**

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a 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 [deprivacyoffier@wv.gov](mailto:deprivacyoffier@wv.gov).

08/04/2023

4706900252P

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6/1/23, 8:59 AM

ORIGIN ID:MGWA (304) 884-1628  
HOLLY MOORE  
SOUTHWESTERN ENERGY COMPANY  
1300 FORT PIERPONT DR.  
SUITE 201  
MORGANTOWN, WV 26508  
UNITED STATES US

SHIP DATE: 01JUN23  
ACTWGT: 0.50 LB  
CAD: 107421957/INET4610

BILL SENDER

TO MICHAEL T. RATCLIFFE

1069 G C & P ROAD

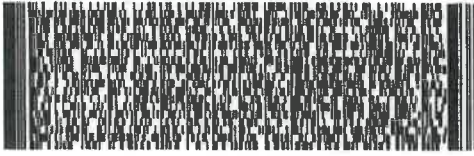
WHEELING WV 26003

(000) 000-0000

REF: 1685

INV:

DEPT:



593.02949PEZD

TUE - 06 JUN 4:30P

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TRK#  
0201

7723 1313 3229

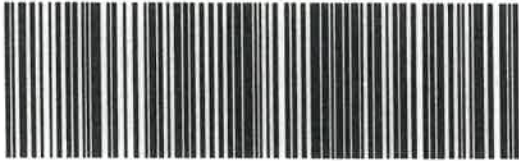
ASR

26003

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HOLLY MOORE  
SOUTHWESTERN ENERGY COMPANY  
1300 FORT PIERPONT DR.  
SUITE 201  
MORGANTOWN, WV 26508  
UNITED STATES US

SHIP DATE: 01JUN23  
ACTWGT: 0.50 LB  
CAD: 107421957/NET4810

BILL SENDER

TO JOHN M. WEITZEL

395 LONGVIEW ROAD

VALLEY GROVE WV 26060

(000) 000-0000

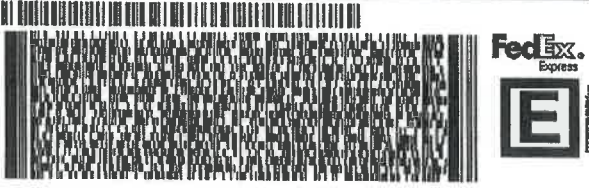
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PO:

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0201

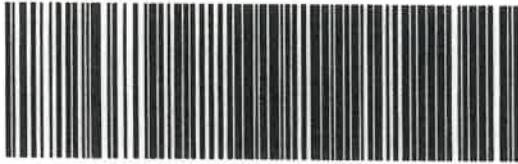
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**SURFACE OWNER WAIVER**

4706900252P

Operator's Well  
Number

Michael Ratcliffe OHI 5H

**INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A**

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

**NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**  
**WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:**

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

**Time Limits and methods for filing comments.** The law requires these materials to be served on or before the date the operator files his Application. You have **FIVE (5) 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.

**Comments must be in writing.** Your comments must 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.

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The Chief has the power to deny or condition a well work permit based on comments on the following grounds:

- 1) The proposed well work will constitute a hazard to the safety of persons.
- 2) The soil erosion and sediment control plan is not adequate or effective;
- 3) Damage would occur to publicly owned lands or resources;
- 4) The proposed well work fails to protect fresh water sources or supplies;
- 5) The applicant has committed a substantial violation of a previous permit or a substantial violation of one or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

WV Department of  
Environmental Protection

**If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.**

**VOLUNTARY STATEMENT OF NO OBJECTION**

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials.

FOR EXECUTION BY A NATURAL PERSON  
ETC.

FOR EXECUTION BY A CORPORATION,

N/A

_____	_____	_____
Signature	Date	Name
		By
		Its

Signature \_\_\_\_\_

08/04/2023

4706900252P

ORIGIN ID:MGWA (304) 884-1828  
HOLLY MOORE  
SOUTHWESTERN ENERGY COMPANY  
1300 FORT PIERPONT DR.  
SUITE 201  
MORGANTOWN, WV 26508  
UNITED STATES US

SHIP DATE: 01JUN23  
ACTWGT: 0.50 LB  
CAD: 107421957/NET4810

BILL SENDER

TO ALLIANCE RESOURCES GP LLC

184 SCHOOLHOUSE LANE

VALLEY GROVE WV 26060

(000) 000-0000

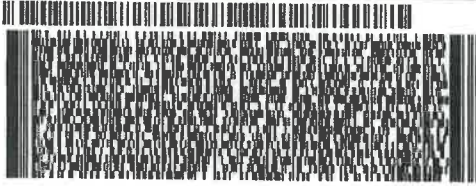
REF: 1685

WV:

PC:

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583J229ABFE2D



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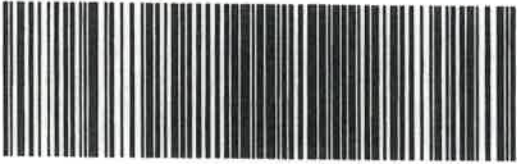
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WW-4B

4706900252P

API No. 47-069-00252  
Farm Name \_\_\_\_\_  
Well No. Michael Ratcliffe OHI 5H

**INSTRUCTIONS TO COAL OPERATORS  
OWNERS AND LESSEE**

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less than five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

**WAIVER**

The undersigned coal operator \_\_\_\_\_ / owner  / lessee \_\_\_\_\_ / of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

*NS/A yam*

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

By: \_\_\_\_\_

Its \_\_\_\_\_

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4706900252P

WR-35  
Rev. 8/23/13

Page 2 of 4

API 47-069 - 00252 Farm name SWN PRODUCTION COMPANY, LLC Well number MICHAEL RATCLIFFE OHI 5H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24	20	126'	NEW	J-55/94#		Y
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set							

Comment Details \*\*\*18" MOUSEHOLE DRILLED TO 75' AND GROUT CEMENT TO SURFACE\*\*\*

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	CLASS A	GROUT TO SURFACE				SURFACE	24
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) \_\_\_\_\_ Loggers TD (ft) \_\_\_\_\_  
 Deepest formation penetrated \_\_\_\_\_ Plug back to (ft) N/A  
 Plug-back procedure N/A

Kick off depth (ft) \_\_\_\_\_

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING \_\_\_\_\_

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS JUN 06 2023

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WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

08/04/2023

N/A  
J W M

API 47-069 - 00252 Farm name SWN PRODUCTION COMPANY, LLC Well number MICHAEL RATCLIFFE OHI 5H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	SEE	ATTACHMENT			

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
	SEE	ATTACHMENT		2				

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Please insert additional pages as applicable.

N/A

WR-35 Rev. 8/23/13

API 47-069-00252

Farm name SWN PRODUCTION COMPANY, LLC Well number MICHAEL RATCLIFFE OHI 5H

PRODUCING FORMATION(S)	DEPTHS	
	TVD	MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs

OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	TOP	BOTTOM	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	DEPTH IN FT NAME TVD	DEPTH IN FT TVD	DEPTH IN FT MD	DEPTH IN FT MD	
	0		0		
	SEE	ATTACHMENT	3		

Please insert additional pages as applicable.

Drilling Contractor SWN DRILLING COMPANY  
 Address PO BOX 12359 City SPRING State TX Zip 77391-2359

Logging Company \_\_\_\_\_  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company \_\_\_\_\_  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Stimulating Company \_\_\_\_\_  
 Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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Please insert additional pages as applicable.

Completed by CAROL A. PRUITT Telephone 832-796-3007  
 Signature \_\_\_\_\_ Title SR. REGULATORY SPECIALIST Date 5.30.2023

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

08/04/2023

WW-9  
(5/16)

API Number 47 - 069 - 00252  
Operator's Well No. \_\_\_\_\_

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 494494833

Watershed (HUC 10) Upper Ohio South Quadrangle Bethany

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

Will a pit be used? Yes  No  Any well effluent will be contained in tanks before disposing off-site

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 (if selected provide a completed form WW-9-GPP)
- Underground Injection ( UIC Permit Number TBD pending selection of plugging contractor )
- Reuse (at API Number \_\_\_\_\_)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain \_\_\_\_\_)

Will closed loop system be used? If so, describe: N/A

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. N/A

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? N/A

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

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

-Landfill or offsite name/permit number? \_\_\_\_\_

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 April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

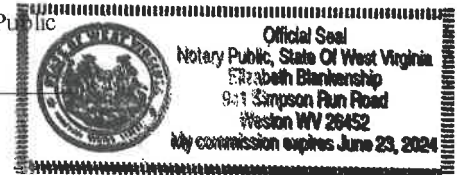
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is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

Company Official Signature *Brittany Woody*  
Company Official (Typed Name) Brittany Woody  
Company Official Title Staff Regulatory Specialist

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Environmental Protection

Subscribed and sworn before me this 2nd day of May, 20 23

*Elizabeth Blankenship* Notary Public  
My commission expires 6/23/2024



08/04/2023



Proposed Revegetation Treatment: Acres Disturbed ONE Prevegetation pH 5.5

Lime Two Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 50 Bales 2.5 Tons/acre

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
		Orchard Grass	30%
		Rye (annual @BT)	35%
		Timothy (Climax)	25%
		Clover (Med.Red)	10%

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, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Gayne Knitowski Digitally signed by Gayne Knitowski  
DN: cn=Gayne Knitowski, o=West Virginia Department of Environmental Protection, email=knitowski@wvdepr.gov

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

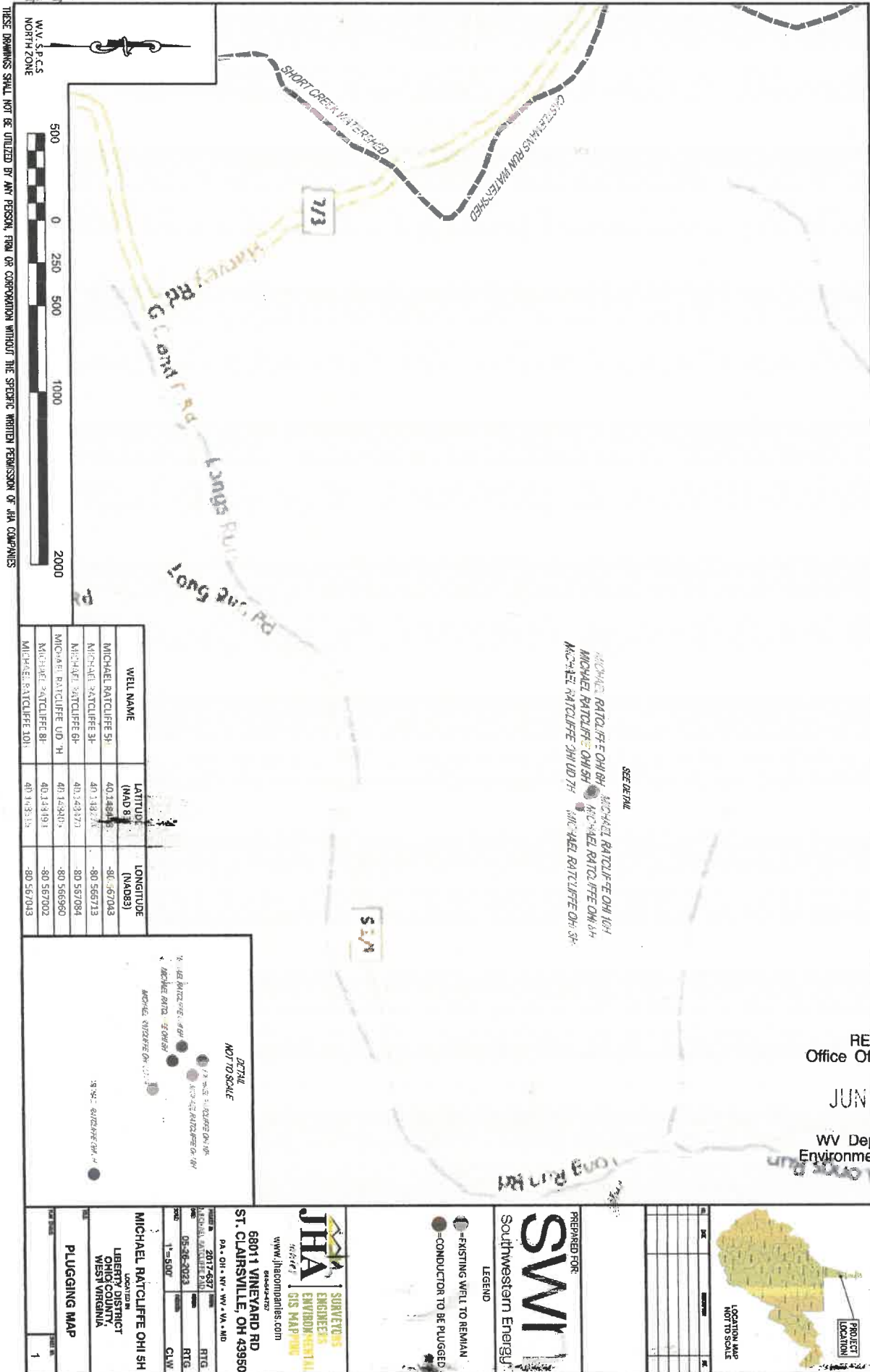
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JUN 05 2023

WV Department of  
Environmental Protection

Title: Inspector Date: 5-31-2023

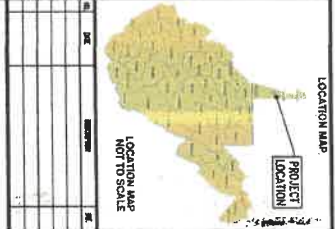
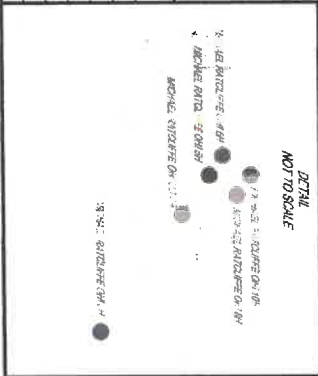
Field Reviewed?  Yes  No



SEE PLAN  
 MICHAEL RATCLIFFE OH 10H  
 MICHAEL RATCLIFFE OH 04H  
 MICHAEL RATCLIFFE OH 5H  
 MICHAEL RATCLIFFE OH 14H  
 MICHAEL RATCLIFFE OH UD 7H  
 MICHAEL RATCLIFFE OH 3H

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WELL NAME	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
MICHAEL RATCLIFFE SH	40.148418	-80.567043
MICHAEL RATCLIFFE 3H	40.148274	-80.566713
MICHAEL RATCLIFFE 6H	40.143773	-80.567094
MICHAEL RATCLIFFE UD 7H	40.143802	-80.566960
MICHAEL RATCLIFFE 8H	40.143911	-80.567002
MICHAEL RATCLIFFE 10H	40.143519	-80.567043



PREPARED FOR:  
**SWI**  
 Southwestern Energy

- LEGEND
- EXISTING WELL TO REMAIN
  - CONDUCTOR TO BE PLUGGED

**JHA** SURVEYORS  
 ENGINEERS  
 ENVIRONMENTAL  
 GIS MAPPING  
 www.jha.com/indus.com

68011 VINEYARD RD  
 ST. CLAIRSVILLE, OH 43950  
 04.01.19.VV.VA.VA.MD  
 2017-4827  
 MICHAEL RATCLIFFE 10H  
 05-26-2023  
 RTG  
 1"=500'  
 CLW

MICHAEL RATCLIFFE OH 10H  
 LIBERTY DISTRICT  
 OHIO COUNTY,  
 WEST VIRGINIA  
**PLUGGING MAP**  
 1

THESE DRAWINGS SHALL NOT BE UTILIZED BY ANY PERSON, FIRM OR CORPORATION WITHOUT THE SPECIFIC WRITTEN PERMISSION OF JHA COMPANIES



West Virginia Department of Environmental Protection  
Office of Oil and Gas

**WELL LOCATION FORM: GPS**

API: 47-069-00252 WELL NO.: 5H

FARM NAME: Michael Ratcliffe OHI

RESPONSIBLE PARTY NAME: SWN Production Co., LLC

COUNTY: Ohio DISTRICT: Liberty

QUADRANGLE: Bethany

SURFACE OWNER: Michael T. Ratcliffe

ROYALTY OWNER: Michael T. Ratcliffe

UTM GPS NORTHING: 4,444,323.572

UTM GPS EASTING: 536,877.014 GPS ELEVATION: 1281'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:  
Survey grade GPS  : Post Processed Differential \_\_\_\_\_

Real-Time Differential

Mapping Grade GPS  : Post Processed Differential \_\_\_\_\_

Real-Time Differential \_\_\_\_\_

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JUN 05

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

WV Department of  
Environmental Protection

Brittany Woody  
Signature

Staff Regulatory Specialist  
Title

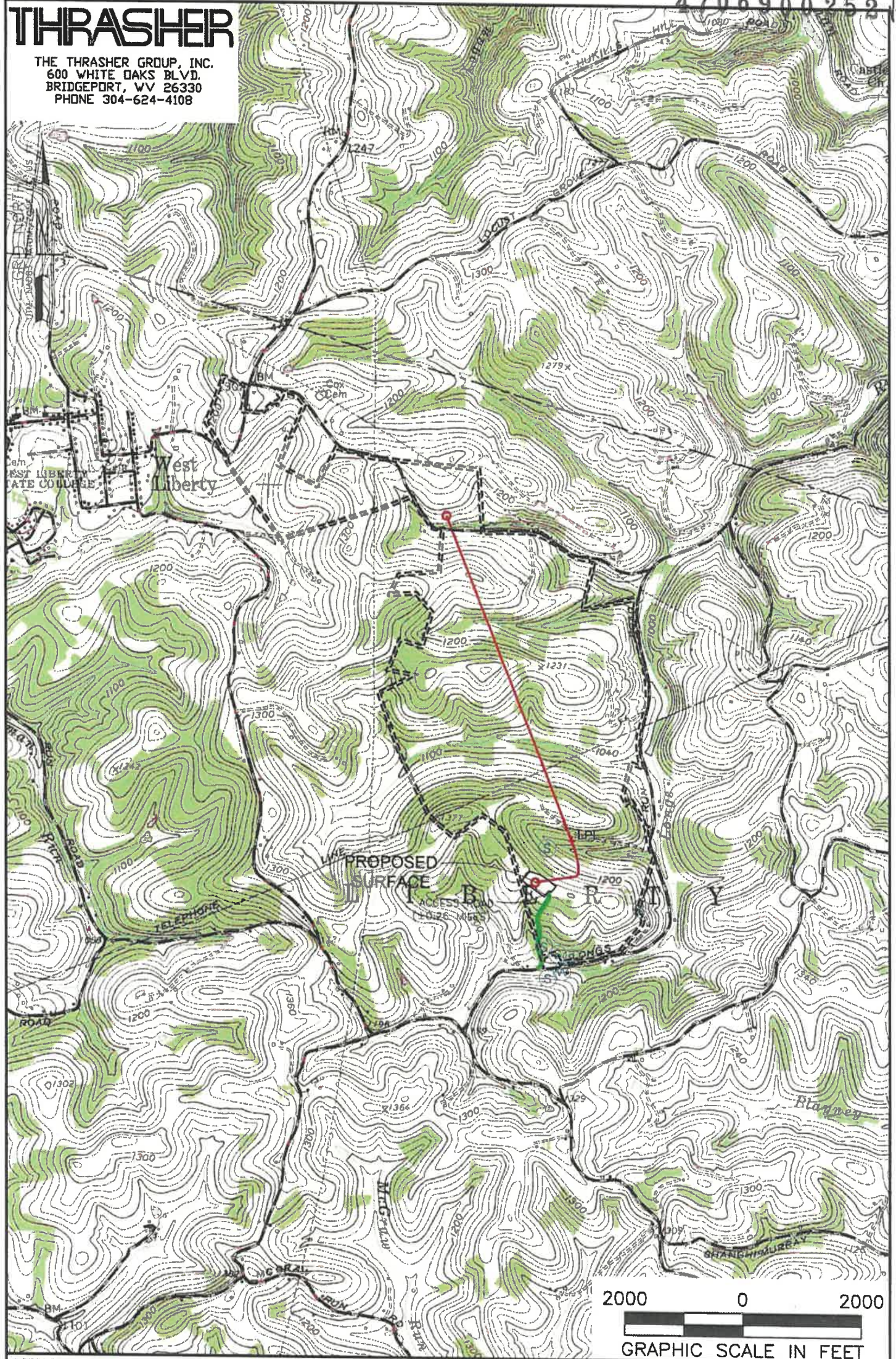
6/1/23  
Date

08/04/2023

4706900252 D

# THRASHER

THE THRASHER GROUP, INC.  
 600 WHITE OAKS BLVD.  
 BRIDGEPORT, WV 26330  
 PHONE 304-624-4108



**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

08/04/2023

**WELL OPERATOR:**  
 SWN PRODUCTION COMPANY, LLC  
**ADDRESS:**  
 P.O. BOX 1300 JANE LEW, WV 26378  
**SURFACE OWNER:**  
 MICHAEL T. RATCLIFFE

**WELL (FARM) NAME:**  
 MICHAEL RATCLIFFE OHI  
**COUNTY - CODE:**  
 OHIO - 069  
**USGS 7 1/2 QUADRANGLE MAP NAME:**  
 BETHANY, WV

**WELL #**  
 5H  
**SERIAL #**  
 XXXX  
**DISTRICT;**  
 LIBERTY

Latitude: 40°10'00"

SURFACE HOLE 7158'

# THRASHER

THE THRASHER GROUP, INC.  
600 WHITE OAKS BLVD.  
BRIDGEPORT, WV 26330  
PHONE: 304-624-4108

### SURFACE HOLE LOCATION (SHL):

UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,444,323.572  
EASTING: 536,877.014

### LANDING POINT (LPL):

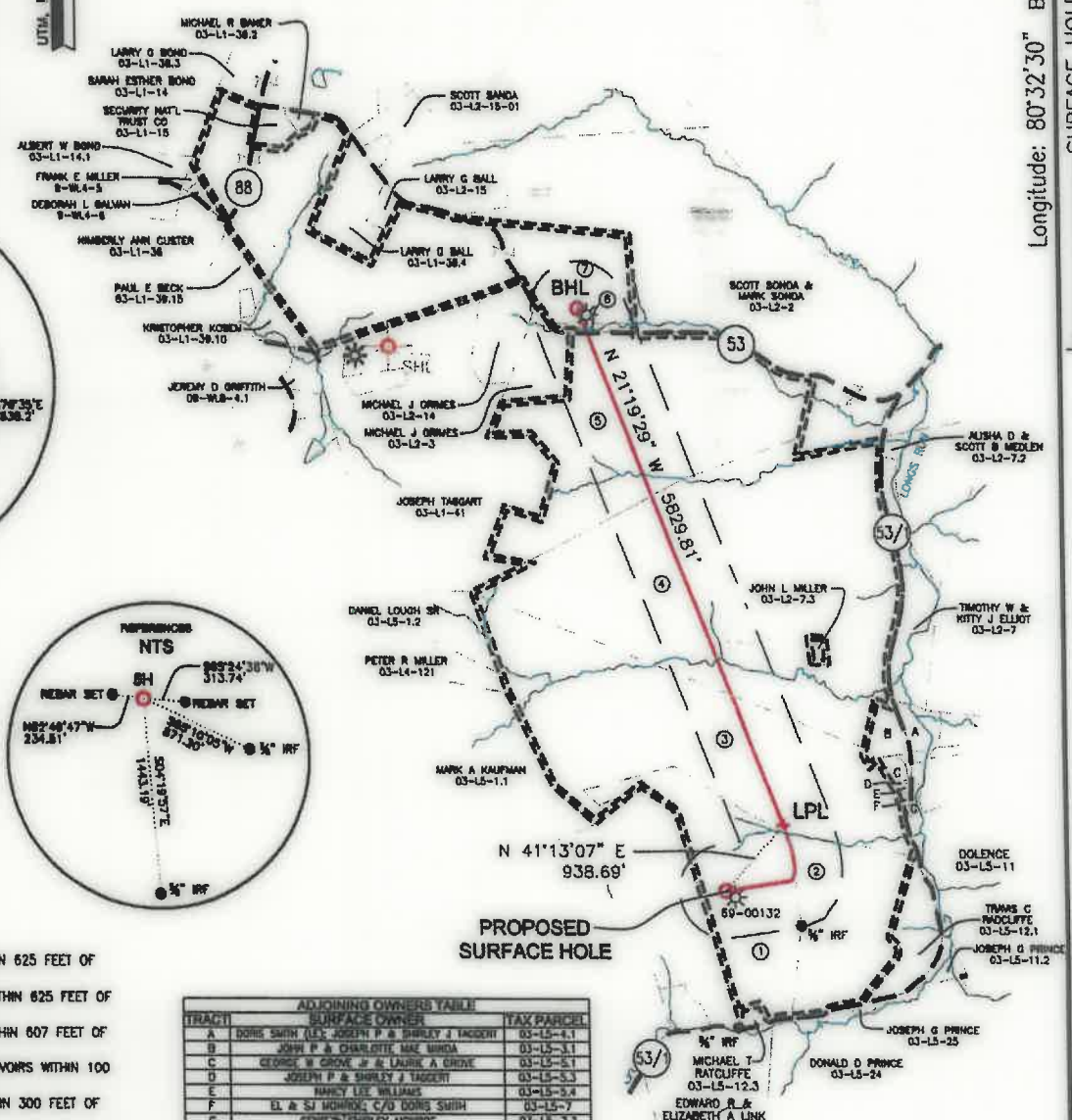
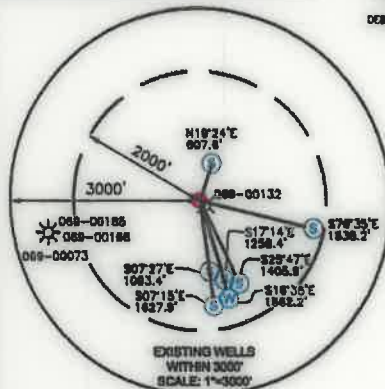
UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,444,538.786  
EASTING: 537,065.543

### BOTTOM HOLE LOCATION (BHL):

UTM (NAD83, ZONE 17, METERS):  
NORTHING: 4,446,194.058  
EASTING: 536,419.354

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

TRACT	SURFACE OWNER (S) / ROYALTY OWNER (R)	TAX PARCEL	ACRES
1	MICHAEL T. RATCLIFFE	03-15-12.4	55.835
2	SURFACE OWNER	TAX PARCEL	ACRES
3	TRAVIS C. RATCLIFFE	03-15-12	45.777
4	JOSEPH P TAGGART & SHIRELY J. TAGGART	03-15-03	128.543
5	JOHN L. MILLER	03-12-7.1	176.07
6	JUDITH FRANCES KLOSS	03-12-4	113.045857
7	LARRY G. BALL	03-11-38.5	1.85714
	LARRY G. BALL	03-11-38	130.457



TRACT	SURFACE OWNER	TAX PARCEL
A	DORIS SMITH (E/C: JOSEPH P & SHIRELY J TAGGART)	03-15-4.1
B	JOHN P & CHARLOTTE MAX MINDA	03-15-3.1
C	GEORGE W CROWE JR & LAURIE A CRIVE	03-15-5.1
D	JOSEPH P & SHIRELY J TAGGART	03-15-3.3
E	HARVEY LEE WILLIAMS	03-15-3.4
F	EL & SJ MORRIS; C/D DORIS SMITH	03-15-7
G	GRACE J SHIRELY MORRIS	03-15-7.3

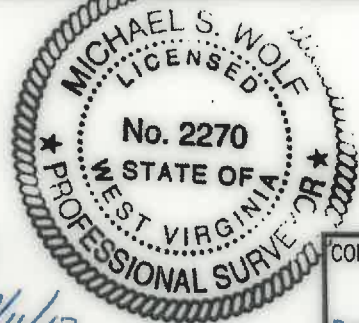
### WELL RESTRICTIONS

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. WATER WELLS OR DEVELOPED SPRINGS ARE WITHIN 607 FEET OF PROPOSED WELL.
4. PERENNIAL STREAMS, LAKES, PONDS, OR RESERVOIRS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
5. NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
6. NO GROUND INTAKE OR PUBLIC WATER SUPPLY WITHIN 1000 FEET OF WELL PAD, LIMITS OF DISTURBANCE, E & S CONTROLS OR PUBLIC WATER SUPPLY.

### NOTES ON SURVEY

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



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

WVDEP  
OFFICE OF OIL & GAS  
601 57TH STREET  
CHARLESTON, WV 25034

MINIMUM DEGREE OF ACCURACY: 1/200

PROVEN SURVEY SOURCE OF GRADE GPS ELEVATION: (NAVD 88, US FT)

COMPANY: **SWN** Production Company, LLC

OPERATOR'S WELL #: MICHAEL RATCLIFFE OHI 5H

API WELL #: 47 STATE 069 COUNTY PERMIT 252

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

WATERSHED: UPPER OHIO SOUTH ELEVATION: 1281.1

DISTRICT: LIBERTY COUNTY: OHIO QUADRANGLE: BETHANY

SURFACE OWNER: MICHAEL T. RATCLIFFE ACREAGE: ±55.835

OIL & GAS ROYALTY OWNER: MICHAEL T. RATCLIFFE ACREAGE: ±55.835

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

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

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: 8,345 TVD 12,621 TMD

WELL OPERATOR: SWN PRODUCTION COMPANY, LLC DESIGNATED AGENT: DEE SOUTHALL

ADDRESS: P.O. BOX 1300 ADDRESS: P.O. BOX 1300

CITY: JANE LEW STATE: WV ZIP CODE: 26378 CITY: JANE LEW STATE: WV ZIP CODE: 26378

LEGEND:	REVISIONS:	DATE:
○ PROPOSED SURFACE HOLE / BOTTOM HOLE	— SURVEYED BOUNDARY	08-11-2017
★ EXISTING / PRODUCING WELLHEAD	— DRILLING UNIT	
LPL LANDING POINT LOCATION	— LEASE BOUNDARY	DRAWN BY: K. POTH
⊙ EXISTING WATER WELL	— PROPOSED PATH	SCALE: 1" = 2000'
⊙ EXISTING SPRING		DRAWING NO: 030-3235
		WELL LOCATION PLAT

4706900252P  
Michael Ratcliffe Bill SH

11/10/2016

PLUGGING PERMIT CHECKLIST

Plugging Permit

- WW-4B
- WW-4B signed by inspector
- WW-4A
  
- SURFACE OWNER WAIVER or PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERTIFIED MAIL
- COAL OWNER/COAL OPERATOR/COAL LESSEE WAIVERS or PROOF THAT APPLICATION WAS SENT BY REGISTERED OR CERTIFIED MAIL
- WW-9 PAGE 1 (NOTARIZED)
- WW-9 PAGE 2 with attached drawing of road, location, pit and proposed area for land application
- WW-9 GPP PAGE 1 and 2 if well effluent will be land applied
- RECENT MYLAR PLAT OR WW-7
- WELL RECORDS/COMPLETION REPORT
- TOPOGRAPHIC MAP OF WELL, SHOWING PIT IF PIT IS USED
- MUST HAVE VALID BOND IN OPERATOR'S NAME
- CHECK FOR \$100 IF PIT IS USED

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Office Of Oil and Gas

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Office

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