



west virginia department of environmental protection

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

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

Wednesday, September 21, 2022
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

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

Re: Permit Modification Approval for VERNON JOHNSON WTZ 201H
47-103-03519-00-00

Well Bore Diagram updated

SWN PRODUCTION COMPANY, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before 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: VERNON JOHNSON WTZ 201H
Farm Name: VERNON S JOHNSON ESTATE
U.S. WELL NUMBER: 47-103-03519-00-00
Horizontal 6A New Drill
Date Modification Issued: 09/21/2022

Promoting a healthy environment.

09/23/2022

WW-6B
(04/15)

API NO. 47-009 - 03519 MOD

OPERATOR WELL NO. Vernon Johnson Wtz 201H
Well Pad Name: Vernon Johnson Wtz

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

1) Well Operator: SWN Production Co., LLC 494512924 103-Wetzel 3-Clay 438-Littleton
Operator ID County District Quadrangle

2) Operator's Well Number: Vernon Johnson Wtz 201H Well Pad Name: Vernon Johnson Wtz

3) Farm Name/Surface Owner: Vernon S. Johnson Estate Public Road Access: Rice Ridge Road

4) Elevation, current ground: 1432' Elevation, proposed post-construction: 1432'

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

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Target Formation- Marcellus, Up-Dip well to the North, Target Top TVD- 7650', Target Base TVD- 7701', Anticipated Thickness- 51', Associated Pressure- 5008

8) Proposed Total Vertical Depth: 7681'

9) Formation at Total Vertical Depth: Marcellus

10) Proposed Total Measured Depth: 27397'

11) Proposed Horizontal Leg Length: 17588.43'

12) Approximate Fresh Water Strata Depths: 440'

13) Method to Determine Fresh Water Depths: Salinity Profile and Nearby Logs from Vernon Johnson Wtz 10H API 47-103-02714

14) Approximate Saltwater Depths: 1795' Salinity Profile analysis and nearby logs

15) Approximate Coal Seam Depths: 1277'

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: _____

Ch #
0001067469
\$5000

WW-68
(04/15)

API NO. 47- 009 - **03579 MOD**
 OPERATOR WELL NO. Vernon Johnson WIZ 201H
 Well Pad-Name: Vernon Johnson WIZ

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	J-55	54.5#	540'	540'	654 sx/CTS
Coal	See	Interm	Casing				
Intermediate	9 5/8"	New	J-55	36#	0'	2600'	1585 sx/CTS
Intermediate	9 5/8"	New	J/K-55	40#	2600'	3001'	
Production	6"	New	P-110	24.5#	0'	5000'	
Production	5 1/2"	New	P-110 HP	20#	5000'	27397'	Tail 50Rsz/ 100' Inside Intermediate

Thomas C. Anagnostis
7-7-22

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20"	30"	0.25	2120	81	Class A	1.20/30% Excess
Fresh Water	13 3/8"	17.5"	0.380	2730	633	Class A	1.20/30% Excess
Coal	See	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:				

Southwestern Energy Company			Proposed Drilling Program		
Well:	VERNON JOHNSON WTZ 201		Re-entry Rig:	SDC 41	
Field:	VICTORY FIELD WET		Prospect:	Marcellus Shale	
County:	WETZEL		State:	WV	
SHL:	39.7180 Latitude	-80.5458 Longitude			
BHL:	39.7562 Latitude	-80.5964 Longitude			
KB Elev:	1,458 ft MSL	KB: 26 ft AGL	GL Elev:	1,432 ft MSL	



No COAL VOID Anticipated

Gas Storage Interval: N/A

PROD TOC Lead @ 3,201' MD

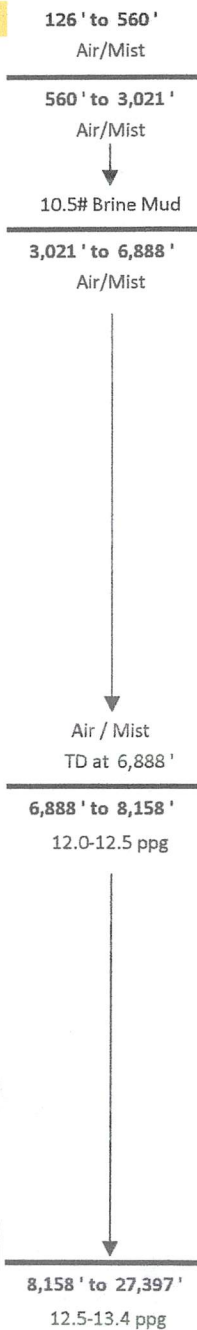
PROD TOC Tail @ 6,788' MD

TUBULAR DETAIL

Casing String	Casing Size (in)	Weight (Min)	Grade (Min)	Planned Interval	
				From	To
Conductor	20	94.0 #	J-55	0'	126'
Surface	13.375	54.5 #	J-55	0'	540'
Intm/Coal	9.625	36.0 #	J-55	0'	2,600'
Intermediate	9.625	40.0 #	J/K-55	2,600'	3,001'
Production	6	24.5 #	P-110	0'	5,000'
Production	5.5	20.0 #	P-110 HP	5,000'	27,397'

CEMENT DETAIL

	Sacks	Class	Density
Conductor:	151	A	19.3
Surface:	654	A	15.6
Intermediate:	1585	A	15.6-16.0
Production:	5098	A	15.0-15.6



KOP at 6,888' MD

Freshwater Depth - 440' TVD
 Coal Depth - 1,277' TVD
 Saltwater Depth - 1,795' TVD
 TVD - 7,681'
 TMD - 27,397'

7,681' Target Center

TD at 27,397' MD
 7,252' TVD

EOB at 8,158' MD

SHL Onondaga 7,701' TVD

Onondaga 7,272' TVD

8,158' to 27,397'

12.5-13.4 ppg

September 7, 2022

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

RE: Proposed Expedited Modification:

Vernon Johnson WTZ 201H -103-03517
Vernon Johnson WTZ 401H -103-03520
Vernon Johnson WTZ ~~1H~~ - 103-03521
601H

Dear Mr. Brewer:

Enclosed please find the required documents to modify this well. We would like to modify this well from a gas storage zone to a none gas storage zone. This well is situated on the Johnson's property, in Clay District, Wetzel County, West Virginia.

Enclosed you will find:

-Updated WBD

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

Thank you.

Sincerely,



Brittany Woody
Senior Regulatory Analyst
Southwestern Energy Production Company, LLC

$\frac{R^2}{A} \rightarrow V^+$



Stansberry, Wade A <wade.a.stansberry@wv.gov>

Expedited Modification Horizontal H6A Well Work Permit (47-103-03519, 03520, 03521)

1 message

Stansberry, Wade A <wade.a.stansberry@wv.gov>

Wed, Sep 21, 2022 at 1:00 PM

To: Brittany Woody <Brittany_Woody@swn.com>, Liz Gee <liz_gee@swn.com>, Scott Lemley <slemley@wvassessor.com>, "Greynolds, Kenneth L" <kenneth.l.greynolds@wv.gov>

I have attached a copy of the newly issued well [permit](#) number. This will serve as your copy.

47-103-03519 - VERNON JOHNSON WTZ 201H
47-103-03520 - VERNON JOHNSON WTZ 401H
47-103-03521 - VERNON JOHNSON WTZ 601H

If you have any questions, then [please](#) contact us here at the Office of Oil and Gas.

Thank you,

Wade A. Stansberry

Environmental Resource Specialist 3

West Virginia Department of Environmental Protection

Office of Oil & Gas

601 57th St. SE


Charleston, WV 25304


(304) 926-0499 ext. 41115


(304) 926-0452 fax

Wade.A.Stansberry@wv.gov

3 attachments

 **47-103-03520 - mod.pdf**
1800K

 **47-103-03521 - mod.pdf**
1793K

 **47-103-03519 - mod.pdf**
2178K

09/23/2022