

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

OCT 28 2019

WV Department of
Environmental Protection

API 47 - 061 - 01826 County MONONGALIA District BATTELLE
Quad WADESTOWN Pad Name WDTN5 Field/Pool Name _____
Farm name WISE Well Number WDTN5NHSM
Operator (as registered with the OOG) CNX GAS COMPANY, LLC
Address 1000 CONSOL ENERGY DRIVE City CANONSBURG State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 440510.96 (NAD 27) Easting 1764429.72 (NAD 27)
Landing Point of Curve Northing 439249.02 (NAD 27) Easting 1763228.97 (NAD 27)
Bottom Hole Northing 430132.30 (NAD 27) Easting 1772722.58 (NAD 27)

Elevation (ft) 1388 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)
SYNTHETIC BASED FLUID

ADDITIVES: ABS MUL (EMULSIFIER), CALCIUM CHLORIDE, FLR PLUS (GILSONITE), CLAYTONE EM (SUSPENSION AGENT), AES WA II (WETTING AGENT), LIME

Date permit issued 1/08/2019 Date drilling commenced 1/09/2019 Date drilling ceased 5/19/2019
Date completion activities began 6/22/2019 Date completion activities ceased 8/31/2019
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 399 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1730, 2479, 2509 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 830, 1170 TRACE: 1810, 1820, 1912, 1918, 2100 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed YDK 11/26/2019
Reviewed by:

API 47-061 - 01826 Farm name WISE Well number WDTN5NHSM

| 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" | 129 | NEW | 94lb/ft | N/A | GROUT TO SURFACE |
| Surface | 17.5" | 13.375" | 1347 | NEW | J-55 54.5lb/ft | N/A | Y - CEMENT TO SURFACE |
| Coal | | | | | | | |
| Intermediate 1 | 12.25" | 9.625" | 2935 | NEW | J-55 36lb/ft | N/A | Y - CEMENT TO SURFACE |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8.75" & 8.5" | 5.5" | 21873 | NEW | P-110 20lb/ft | N/A | Y - TOC @ 793 |
| Tubing | | | | | | | |
| Packer type and depth set | | | | | | | |

Comment Details ALL DEPTHS ARE REFERENCED TO RKB = 29' GLE

| CEMENT DATA | Class/Type of Cement | Number of Sacks | Slurry wt (ppg) | Yield (ft ³ /sks) | Volume (ft ³) | Cement Top (MD) | WOC (hrs) |
|----------------|----------------------|---------------------------|-----------------|------------------------------|---------------------------|-----------------|-----------|
| Conductor | | | | | | | |
| Surface | HALCEM | 980 | 15.8 | 1.169 | 1146 | 0 | 8 |
| Coal | | | | | | | |
| Intermediate 1 | HALCEM | 960 | 15.8 | 1.147 | 1101 | 0 | 8 |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | NEOCEM | 1220 (LEAD) / 3090 (TAIL) | 14.5 | 1.169 (LEAD) / 1.165 (TAIL) | 1428 (LEAD) / 3000 (TAIL) | 793 | 8 |
| Tubing | | | | | | | |

Drillers TD (ft) 21816 Loggers TD (ft) 21816

Deepest formation penetrated MARCELLUS Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 7518

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 _____

SURFACE: Centralize every other joint from shoe to surface

INTERMEDIATE: Centralize every 3rd joint from shoe to surface

PRODUCTION: Centralize every joint from shoe to 2,540'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

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API 47- 061 - 01826 Farm name WISE Well number WDTN5NHSM

PERFORATION RECORD

| Stage No. | Perforation date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formation(s) |
|-----------|------------------|------------------------|----------------------|------------------------|--------------|
| | SEE | ATTACHMENT | 1 | | |
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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.

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API 47- 061 - 01826

Farm name WISE

Well number WDTN5NHSM

PRODUCING FORMATION(S)

DEPTHS

MARCELLUS 8,004 TVD 8,605 MD

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Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 1787 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 8989.70 mcfpd Oil 0 bpd NGL 0 bpd Water 1440 bpd GAS MEASURED BY Estimated Orifice Pilot

| LITHOLOGY/ FORMATION | TOP DEPTH IN FT NAME TVD | BOTTOM DEPTH IN FT TVD | TOP DEPTH IN FT MD | BOTTOM DEPTH IN FT MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC) |
|-------------------------|--------------------------------|------------------------------|--------------------------|-----------------------------|--|
| UNDIFFERENTIATED SAND | 0 | 440 | 0 | 440 | SANDSTONE / SILTSTONE/ TRACES OF LIMESTONE |
| UNDIFFERENTIATED LIME | 440 | 470 | 440 | 470 | LIME STONE / SANDSTONE |
| UNDIFFERENTIATED SAND | 470 | 510 | 470 | 510 | SANDSTONE / LIMESTONE |
| UNDIFFERENTIATED SILT | 510 | 830 | 510 | 830 | SILTSTONE / LIMESTONE/ TRACES OF SANDSTONE & RED SHALE |
| WAYNESBURG | 830 | 832 | 830 | 832 | COAL / SILTSTONE / SANDSTONE |
| UNDIFFERENTIATED SILT | 832 | 850 | 832 | 850 | SILTSTONE / SANDSTONE |
| UNDIFFERENTIATED SAND | 850 | 950 | 850 | 950 | SANDSTONE |
| UNDIFFERENTIATED SILT | 950 | 1000 | 950 | 1000 | SILTSTONE / LIMESTONE |
| UNDIFFER. LIME / SILT | 1000 | 1170 | 1000 | 1170 | LIMESTONE / SILTSTONE |
| PITTSBURGH COAL | 1170 | 1180 | 1170 | 1180 | COAL / LIMESTONE / SILTSTONE |
| UNDIFFERENTIATED LIME | 1180 | 1230 | 1180 | 1230 | LIMESTONE / SILTSTONE |
| UNDIFFERENTIATED SILT | 1230 | 1400 | 1230 | 1400 | SILTSTONE / LIMESTONE / RED SHALE |
| UNDIFFERENTIATED SILT | 1400 | 1730 | 1400 | 1730 | SILTSTONE / SANDSTONE |
| UPPER FREEPORT | 1730 | 1740 | 1730 | 1740 | SANDSTONE |

Please insert additional pages as applicable.

Drilling Contractor PATTERSON-UTI DRILLING COMPANY

Address 207 CARLTON DRIVE City EIGHTY FOUR State PA Zip 15330

Logging Company DIVERSIFIED WELL LOGGING LLC

Address 71 N. MAIN STREET City WASHINGTON State PA Zip 15301

Cementing Company HALLIBURTON

Address 121 CHAMPION WAY SUITE #210 City CANONSBURG State PA Zip 15317

Stimulating Company KEANE

Address 5825 North Sam Houston Parkway West Suite 600 City Houston State TX Zip 77086

Please insert additional pages as applicable.

Completed by Michael Honce

Telephone 304-884-2138

Signature 

Title Superintendent Completions

Date 10/22/2019

LITHOLOGIES CONTINUED

| LITHOLOGY / FORMATION | TOP DEPTH IN FT NAME TVD | BOTTOM DEPTH IN FT NAME TVD | TOP DEPTH IN FT NAME MD | BOTTOM DEPTH IN FT NAME MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H2S, ETC) |
|------------------------|--------------------------|-----------------------------|-------------------------|----------------------------|--|
| UNDIFFERENTIATED SAND | 1740 | 1810 | 1740 | 1810 | SANDSTONE |
| LOWER FREEPORT | 1810 | 1820 | 1810 | 1820 | SANDSTONE/ SILTSTONE/ TRACES OF COAL |
| UNDIFFERENTIATED SAND | 1820 | 1912 | 1820 | 1912 | SANDSTONE/ SILTSTONE/ TRACES OF COAL |
| MIDDLE KITTANING | 1912 | 1918 | 1912 | 1918 | SANDSTONE/ SILTSTONE/ TRACES OF COAL |
| UNDIFFERENTIATED SAND | 1918 | 2100 | 1918 | 2100 | SANDSTONE/ SILTSTONE/ TRACES OF COAL |
| UNDIFFERENTIATED SILT | 2100 | 2280 | 2100 | 2280 | SILTSTONE/ TRACES OF COAL |
| UNDIFFERENTIATED SAND | 2280 | 2300 | 2280 | 2300 | SANDSTONE |
| UNDIFFERENTIATED SILT | 2300 | 2340 | 2300 | 2340 | SILTSTONE |
| UNDIFFERENTIATED SHALE | 2340 | 2380 | 2340 | 2380 | RED SHALE |
| UNDIFFERENTIATED SILT | 2380 | 2420 | 2380 | 2420 | SILTSTONE/ RED SHALE |
| BIG LIME | 2420 | 2480 | 2420 | 2480 | LIMESTONE/ SILTSTONE |
| KEENER | 2480 | 2510 | 2480 | 2510 | SANDSTONE/ SILTSTONE |
| BIG INJUN | 2510 | 2690 | 2510 | 2690 | SANDSTONE |
| BIG INJUN BASE | 2690 | 3080 | 2690 | 3080 | SILTSTONE |
| 50 FOOT | 3080 | 3140 | 3080 | 3140 | SILTSTONE |
| GORDON | 3140 | 3305 | 3140 | 3305 | SANDSTONE/ SILTSTONE |
| FIFTH | 3305 | 3352 | 3305 | 3352 | SILTSTONE |
| BAYARD | 3352 | 5290 | 3352 | 5290 | SILTSTONE/ TRACES RED & GREY SHALES |
| ELK | 5290 | 7442 | 5290 | 7733 | SILTSTONE/ GREY SHALE |
| RHIESTREET | 7442 | 7678 | 7733 | 8000 | GREY SHALE |
| CASHAQUA | 7678 | 7798 | 8000 | 8158 | GREY SHALE |
| BURKET | 7798 | 7821 | 8158 | 8192 | GREY SHALE |
| TULLY | 7821 | 7881 | 8192 | 8284 | LIMESTONE/ GRAY SHALE |
| HAMILTON | 7881 | 7994 | 8284 | 8560 | GREY SHALE |
| MARCELLUS | 7994 | 8008 | 8560 | 8625 | BLACK SHALE |
| CHERRY VALLEY | 8022 | 8028 | 8720 | 8819 | BLACK SHALE |
| TD (MARCELLUS) | | | | 21816 | |

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WDTN5NHSM – PERFORATION RECORD – ATTACHMENT 1

| Stage No. | Perforation Date | Perforation from MD ft. | Perforation to MD ft. | Number of Perforations | Formation(s) |
|------------------|-------------------------|--------------------------------|------------------------------|-------------------------------|---------------------|
| 1 | 6/22/2019 | 21,653.0 | 21,819.0 | 64 | Marcellus Shale |
| 2 | 6/23/2019 | 21,430.5 | 21,612.5 | 40 | Marcellus Shale |
| 3 | 6/25/2019 | 21,205.5 | 21,387.5 | 40 | Marcellus Shale |
| 4 | 6/26/2019 | 20,980.5 | 21,162.5 | 40 | Marcellus Shale |
| 5 | 6/26/2019 | 20,755.5 | 20,937.5 | 40 | Marcellus Shale |
| 6 | 6/27/2019 | 20,530.5 | 20,712.5 | 64 | Marcellus Shale |
| 7 | 6/28/2019 | 20,305.5 | 20,487.5 | 40 | Marcellus Shale |
| 8 | 6/28/2019 | 20,080.5 | 20,262.5 | 40 | Marcellus Shale |
| 9 | 6/28/2019 | 19,855.5 | 20,037.5 | 40 | Marcellus Shale |
| 10 | 6/29/2019 | 19,630.5 | 19,812.5 | 40 | Marcellus Shale |
| 11 | 6/29/2019 | 19,405.5 | 19,587.5 | 40 | Marcellus Shale |
| 12 | 6/30/2019 | 19,180.5 | 19,362.5 | 40 | Marcellus Shale |
| 13 | 6/30/2019 | 18,955.5 | 19,137.5 | 40 | Marcellus Shale |
| 14 | 7/2/2019 | 18,730.5 | 18,912.5 | 40 | Marcellus Shale |
| 15 | 7/2/2019 | 18,505.5 | 18,687.5 | 40 | Marcellus Shale |
| 16 | 7/3/2019 | 18,280.5 | 18,462.5 | 40 | Marcellus Shale |
| 17 | 7/14/2019 | 18,055.5 | 18,237.5 | 40 | Marcellus Shale |
| 18 | 7/19/2019 | 17,830.5 | 18,012.5 | 40 | Marcellus Shale |
| 19 | 7/19/2019 | 17,605.5 | 17,787.5 | 40 | Marcellus Shale |
| 20 | 7/20/2019 | 17,380.5 | 17,562.5 | 40 | Marcellus Shale |
| 21 | 7/20/2019 | 17,155.5 | 17,337.5 | 40 | Marcellus Shale |
| 22 | 7/21/2019 | 16,930.5 | 17,112.5 | 40 | Marcellus Shale |
| 23 | 7/21/2019 | 16,705.5 | 16,887.5 | 40 | Marcellus Shale |
| 24 | 7/22/2019 | 16,480.5 | 16,662.5 | 40 | Marcellus Shale |
| 25 | 7/22/2019 | 16,255.5 | 16,437.5 | 40 | Marcellus Shale |
| 26 | 7/23/2019 | 16,030.5 | 16,212.5 | 40 | Marcellus Shale |
| 27 | 7/23/2019 | 15,805.5 | 15,987.5 | 40 | Marcellus Shale |
| 28 | 7/23/2019 | 15,580.5 | 15,762.5 | 40 | Marcellus Shale |
| 29 | 7/23/2019 | 15,355.5 | 15,537.5 | 40 | Marcellus Shale |
| 30 | 7/24/2019 | 15,130.5 | 15,312.5 | 40 | Marcellus Shale |
| 31 | 7/24/2019 | 14,905.5 | 15,087.5 | 40 | Marcellus Shale |
| 32 | 7/24/2019 | 14,680.5 | 14,862.5 | 40 | Marcellus Shale |
| 33 | 7/25/2019 | 14,455.5 | 14,637.5 | 40 | Marcellus Shale |
| 34 | 7/25/2019 | 14,230.5 | 14,412.5 | 40 | Marcellus Shale |
| 35 | 7/25/2019 | 14,005.5 | 14,187.5 | 40 | Marcellus Shale |
| 36 | 7/26/2019 | 13,780.5 | 13,962.5 | 40 | Marcellus Shale |
| 37 | 7/26/2019 | 13,555.5 | 13,737.5 | 40 | Marcellus Shale |
| 38 | 7/27/2019 | 13,330.5 | 13,512.5 | 40 | Marcellus Shale |
| 39 | 7/27/2019 | 13,105.5 | 13,287.5 | 40 | Marcellus Shale |
| 40 | 7/28/2019 | 12,880.5 | 13,062.5 | 40 | Marcellus Shale |
| 41 | 7/28/2019 | 12,655.5 | 12,837.5 | 40 | Marcellus Shale |
| 42 | 7/28/2019 | 12,430.5 | 12,612.5 | 40 | Marcellus Shale |
| 43 | 7/29/2019 | 12,205.5 | 12,387.5 | 40 | Marcellus Shale |
| 44 | 7/29/2019 | 11,980.5 | 12,162.5 | 40 | Marcellus Shale |
| 45 | 7/30/2019 | 11,755.5 | 11,937.5 | 40 | Marcellus Shale |
| 46 | 7/30/2019 | 11,530.5 | 11,712.5 | 40 | Marcellus Shale |
| 47 | 7/31/2019 | 11,305.5 | 11,487.5 | 40 | Marcellus Shale |
| 48 | 7/31/2019 | 11,080.5 | 11,262.5 | 40 | Marcellus Shale |
| 49 | 7/31/2019 | 10,855.5 | 11,037.5 | 40 | Marcellus Shale |
| 50 | 8/1/2019 | 10,630.5 | 10,812.5 | 40 | Marcellus Shale |
| 51 | 8/1/2019 | 10,405.5 | 10,587.5 | 40 | Marcellus Shale |
| 52 | 8/1/2019 | 10,180.5 | 10,362.5 | 40 | Marcellus Shale |
| 53 | 8/2/2019 | 9,955.5 | 10,137.5 | 40 | Marcellus Shale |
| 54 | 8/2/2019 | 9,730.5 | 9,912.5 | 40 | Marcellus Shale |
| 55 | 8/3/2019 | 9,505.5 | 9,687.5 | 40 | Marcellus Shale |
| 56 | 8/3/2019 | 9,280.5 | 9,462.5 | 40 | Marcellus Shale |
| 57 | 8/3/2019 | 9,055.5 | 9,237.5 | 40 | Marcellus Shale |
| 58 | 8/4/2019 | 8,830.5 | 9,012.5 | 40 | Marcellus Shale |
| 59 | 8/4/2019 | 8,605.5 | 8,787.5 | 40 | Marcellus Shale |

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WDTN5NHSM – STIMULATION INFORMATION PER STAGE – ATTACHMENT 2

| 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) |
|-----------|-------------------|---------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| 1 | 6/22/2019 | 70 | 9,842.0 | 9,062.0 | 4,993.0 | 575,188.0 | 16,479.05 | N/A |
| 2 | 6/25/2019 | 82 | 10,197.0 | 7,208.0 | 4,849.0 | 545,266.0 | 10,204.00 | N/A |
| 3 | 6/25/2019 | 77 | 9,429.0 | 8,213.0 | 6,019.0 | 548,083.0 | 10,376.00 | N/A |
| 4 | 6/26/2019 | 85 | 10,360.0 | 7,482.0 | 4,965.0 | 560,287.0 | 10,329.00 | N/A |
| 5 | 6/27/2019 | 79 | 10,031.0 | 7,249.0 | 6,005.0 | 543,800.0 | 17,208.98 | N/A |
| 6 | 6/27/2019 | 81 | 9,426.0 | 6,460.0 | 6,240.0 | 165,922.0 | 21,488.02 | N/A |
| 7 | 6/28/2019 | 86 | 10,123.0 | 6,593.0 | 6,078.0 | 195,836.0 | 9,789.00 | N/A |
| 8 | 6/28/2019 | 75 | 8,845.0 | 6,864.0 | 5,883.0 | 215,281.0 | 10,690.00 | N/A |
| 9 | 6/29/2019 | 79 | 8,759.0 | 6,549.0 | 5,718.0 | 215,596.0 | 10,572.95 | N/A |
| 10 | 6/29/2019 | 87 | 9,485.0 | 6,545.0 | 5,853.0 | 217,256.0 | 11,616.00 | N/A |
| 11 | 6/30/2019 | 85 | 9,198.0 | 6,503.0 | 5,489.0 | 205,129.0 | 10,550.98 | N/A |
| 12 | 6/30/2019 | 84 | 9,016.0 | 6,587.0 | 5,834.0 | 212,211.0 | 12,330.02 | N/A |
| 13 | 7/1/2019 | 83 | 9,120.0 | 6,638.0 | 5,924.0 | 223,934.0 | 10,134.00 | N/A |
| 14 | 7/2/2019 | 87 | 9,422.0 | 7,369.0 | 5,827.0 | 220,553.0 | 10,231.00 | N/A |
| 15 | 7/2/2019 | 79 | 8,618.0 | 6,162.0 | 5,621.0 | 208,328.0 | 12,808.05 | N/A |
| 16 | 7/3/2019 | 90 | 9,474.0 | 6,557.0 | 5,713.0 | 527,983.0 | 10,124.00 | N/A |
| 17 | 7/19/2019 | 94 | 9,608.0 | 6,747.0 | 5,169.0 | 526,354.0 | 9,309.00 | N/A |
| 18 | 7/19/2019 | 98 | 9,503.0 | 7,843.0 | 5,696.0 | 558,695.0 | 10,266.98 | N/A |
| 19 | 7/19/2019 | 95 | 9,616.0 | 6,607.0 | 5,727.0 | 542,327.0 | 10,399.00 | N/A |
| 20 | 7/20/2019 | 92 | 9,191.0 | 6,709.0 | 5,908.0 | 555,942.0 | 12,349.00 | N/A |
| 21 | 7/21/2019 | 95 | 9,342.0 | 6,941.0 | 5,535.0 | 539,755.0 | 10,172.00 | N/A |
| 22 | 7/21/2019 | 98 | 9,620.0 | 6,413.0 | 5,379.0 | 556,834.0 | 8,755.00 | N/A |
| 23 | 7/22/2019 | 95 | 9,223.0 | 6,768.0 | 5,703.0 | 545,550.0 | 10,065.00 | N/A |
| 24 | 7/22/2019 | 97 | 9,438.0 | 6,504.0 | 5,726.0 | 561,886.0 | 8,603.98 | N/A |
| 25 | 7/22/2019 | 95 | 8,974.0 | 6,506.0 | 5,709.0 | 540,510.0 | 10,062.00 | N/A |
| 26 | 7/23/2019 | 93 | 9,345.0 | 6,067.0 | 5,444.0 | 543,887.0 | 9,016.02 | N/A |
| 27 | 7/23/2019 | 97 | 9,370.0 | 6,981.0 | 5,727.0 | 545,707.0 | 8,089.62 | N/A |
| 28 | 7/23/2019 | 95 | 9,240.0 | 6,712.0 | 5,706.0 | 540,016.0 | 9,988.00 | N/A |
| 29 | 7/24/2019 | 95 | 9,331.0 | 6,562.0 | 5,990.0 | 537,739.0 | 9,252.00 | N/A |
| 30 | 7/24/2019 | 96 | 9,277.0 | 7,985.0 | 6,028.0 | 544,836.0 | 8,592.00 | N/A |
| 31 | 7/24/2019 | 96 | 9,228.0 | 7,011.0 | 6,215.0 | 543,810.0 | 8,582.00 | N/A |
| 32 | 7/24/2019 | 96 | 9,318.0 | 6,516.0 | 6,051.0 | 548,071.0 | 8,637.00 | N/A |
| 33 | 7/25/2019 | 98 | 9,257.0 | 6,705.0 | 5,790.0 | 534,641.0 | 8,544.00 | N/A |
| 34 | 7/25/2019 | 101 | 9,531.0 | 6,148.0 | 6,005.0 | 553,494.0 | 8,945.98 | N/A |
| 35 | 7/26/2019 | 100 | 9,626.0 | 6,198.0 | 5,850.0 | 545,614.0 | 8,524.00 | N/A |
| 36 | 7/26/2019 | 98 | 9,237.0 | 6,732.0 | 6,183.0 | 552,586.0 | 8,651.02 | N/A |
| 37 | 7/27/2019 | 100 | 9,079.0 | 6,558.0 | 5,785.0 | 539,176.0 | 8,320.00 | N/A |
| 38 | 7/27/2019 | 99 | 8,909.0 | 6,070.0 | 5,325.0 | 545,119.0 | 8,576.00 | N/A |
| 39 | 7/28/2019 | 101 | 9,179.0 | 7,555.0 | 5,917.0 | 552,249.0 | 8,434.00 | N/A |
| 40 | 7/28/2019 | 99 | 8,909.0 | 6,341.0 | 5,554.0 | 537,466.0 | 8,324.00 | N/A |
| 41 | 7/28/2019 | 100 | 9,159.0 | 6,601.0 | 5,588.0 | 546,327.0 | 8,433.00 | N/A |
| 42 | 7/29/2019 | 100 | 9,061.0 | 7,248.0 | 5,645.0 | 542,001.0 | 8,307.00 | N/A |
| 43 | 7/29/2019 | 99 | 8,991.0 | 5,262.0 | 5,524.0 | 545,099.0 | 8,317.00 | N/A |
| 44 | 7/30/2019 | 101 | 9,505.0 | 6,538.0 | 5,570.0 | 538,578.0 | 8,271.00 | N/A |
| 45 | 7/30/2019 | 98 | 8,919.0 | 5,976.0 | 5,497.0 | 541,559.0 | 8,304.00 | N/A |
| 46 | 7/30/2019 | 101 | 9,057.0 | 6,077.0 | 5,733.0 | 540,510.0 | 8,408.00 | N/A |
| 47 | 7/31/2019 | 94 | 8,456.0 | 5,529.0 | 5,332.0 | 546,274.0 | 8,472.00 | N/A |
| 48 | 7/31/2019 | 94 | 8,225.0 | 5,410.0 | 5,707.0 | 548,754.0 | 8,422.00 | N/A |
| 49 | 8/1/2019 | 98 | 8,595.0 | 6,419.0 | 5,705.0 | 545,599.0 | 8,208.02 | N/A |
| 50 | 8/1/2019 | 96 | 8,396.0 | 6,969.0 | 5,101.0 | 544,627.0 | 8,341.98 | N/A |
| 51 | 8/1/2019 | 99 | 8,526.0 | 6,968.0 | 5,673.0 | 550,364.0 | 8,213.02 | N/A |
| 52 | 8/2/2019 | 99 | 8,246.0 | 5,266.0 | 5,502.0 | 545,486.0 | 8,151.05 | N/A |
| 53 | 8/2/2019 | 96 | 8,293.0 | 6,792.0 | 5,230.0 | 542,769.0 | 8,316.00 | N/A |
| 54 | 8/2/2019 | 99 | 8,150.0 | 6,626.0 | 5,662.0 | 553,267.0 | 8,225.05 | N/A |
| 55 | 8/3/2019 | 96 | 8,380.0 | 7,134.0 | 5,324.0 | 541,881.0 | 8,356.00 | N/A |
| 56 | 8/3/2019 | 95 | 8,270.0 | 6,299.0 | 6,194.0 | 545,540.0 | 8,267.00 | N/A |
| 57 | 8/4/2019 | 100 | 8,114.0 | 6,228.0 | 5,885.0 | 568,595.0 | 8,349.95 | N/A |
| 58 | 8/4/2019 | 96 | 8,007.0 | 6,941.0 | 5,869.0 | 539,176.0 | 8,195.00 | N/A |
| 59 | 8/4/2019 | 99 | 8,058.0 | 7,358.0 | 5,885.0 | 557,662.0 | 8,207.98 | N/A |

Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|--------------------------------|---------------------|
| Job Start Date: | 6/22/2019 |
| Job End Date: | 8/4/2019 |
| State: | West Virginia |
| County: | Monongalia |
| API Number: | 47-061-01826-00-00 |
| Operator Name: | CNX Gas Company LLC |
| Well Name and Number: | WDTN5 NHSM |
| Latitude: | 39.70652100 |
| Longitude: | -80.33709500 |
| Datum: | NAD83 |
| Federal Well: | NO |
| Indian Well: | NO |
| True Vertical Depth: | 8,141 |
| Total Base Water Volume (gal): | 23,960,118 |
| Total Base Non Water Volume: | 0 |

Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Abstract Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|--------------------------|----------|--------------------|-----------------------------------|--|--|--|----------|
| Water | CNX | Carrier/Base Fluid | Water | 7732-18-5 | 100.00000 | 86.02761 | None |
| Sand (Proppant) | Keane | Proppant | Crystalline silica: Quartz (SiO2) | 14808-60-7 | 100.00000 | 13.24475 | None |
| Hydrochloric Acid (7.5%) | Keane | Acid Inhibitor | Water | 7732-18-5 | 92.50000 | 0.29989 | None |
| Hydrochloric Acid (15%) | Keane | Acidizing | Hydrochloric Acid | 7647-01-0 | 7.50000 | 0.02432 | None |
| KFR-48 | Keane | Friction Reducer | Water | 7732-18-5 | 85.00000 | 0.18599 | None |
| KWG-111LS | Keane | Gel | Guar gum | 9000-30-0 | 55.00000 | 0.03587 | None |



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| | | | | | | | | |
|--|--------------|------------------------|---|-------------|----------|---------|------|--|
| KSI-22 | Keane | Scale Inhibitor | Distillates (petroleum), hydrotreated light | 64742-47-8 | 55.00000 | 0.03587 | None | |
| | | | Methanol | 67-56-1 | 50.00000 | 0.01088 | None | |
| | | | 2-propenoic acid, polymer with 2-(1-oxo-2-propenyl)amino-1-propensulfonic acid monosodium salt and sodium phosphinite | 110224-99-2 | 10.00000 | 0.00218 | None | |
| MBC-516 | Keane | Biocide | glutaral | 111-30-8 | 26.70000 | 0.00453 | None | |
| | | | didecyldimethylammonium chloride | 7173-51-5 | 8.00000 | 0.00135 | None | |
| | | | quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides | 68424-85-1 | 5.30000 | 0.00090 | None | |
| | | | Ethanol | 64-17-5 | 2.80000 | 0.00048 | None | |
| KFEAC-20 | Keane | Iron Control | acetic acid | 64-19-7 | 50.00000 | 0.00119 | None | |
| | | | Citric acid | 77-92-9 | 30.00000 | 0.00069 | None | |
| KAI-18 | Keane | Acid Inhibitor | methanol | 67-56-1 | 65.00000 | 0.00074 | None | |
| | | | alkyl pyridine quaternary ammonium chloride | 68909-18-2 | 20.00000 | 0.00023 | None | |
| | | | formic acid | 64-18-6 | 20.00000 | 0.00023 | None | |
| | | | surfactant | Proprietary | 10.00000 | 0.00011 | None | |
| | | | propargyl alcohol | 107-19-7 | 5.00000 | 0.00006 | None | |
| KWBO-2 | Keane | Breaker | Sodium persulfate | 7775-27-1 | 99.00000 | 0.00068 | None | |
| Chemiliquid 250 | Keane | pH Buffer | water | 7732-18-5 | 75.00000 | 0.00005 | None | |
| | | | sodium hydroxide | 1310-73-2 | 25.00000 | 0.00002 | None | |
| Ingredients shown above are subject to 29 CFR 1910.1200(f) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS. | | | | | | | | |
| Other Chemical(s) | Listed Above | See Trade Name(s) List | | | | | | |
| | | | Water | 7732-18-5 | 92.50000 | 0.29989 | | |
| | | | Water | 7732-18-5 | 85.00000 | 0.18599 | | |
| | | | Distillates (petroleum), hydrotreated light | 64742-47-8 | 55.00000 | 0.03587 | | |
| | | | butene, homopolymer | 9003-29-6 | 25.00000 | 0.01911 | | |
| | | | alkanes, C16-20-iso- | 90622-59-6 | 25.00000 | 0.01911 | | |
| | | | Alcohols, C12-18, ethoxylated | 68213-23-0 | 3.00000 | 0.00229 | | |
| | | | 2-propenoic acid, polymer with 2-(1-oxo-2-propenyl)amino-1-propensulfonic acid monosodium salt and sodium phosphinite | 110224-99-2 | 10.00000 | 0.00218 | | |
| | | | didecyldimethylammonium chloride | 7173-51-5 | 8.00000 | 0.00135 | | |

| | | | | |
|--|--|-------------|----------|---------|
| | quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl chlorides | 68424-85-1 | 5.30000 | 0.00090 |
| | Citric acid | 77-92-9 | 30.00000 | 0.00069 |
| | Ethanol | 64-17-5 | 2.80000 | 0.00048 |
| | alkyl pyridine quaternary ammonium chloride | 68909-18-2 | 20.00000 | 0.00023 |
| | formic acid | 64-18-6 | 20.00000 | 0.00023 |
| | surfactant | Proprietary | 10.00000 | 0.00011 |
| | propargyl alcohol | 107-19-7 | 5.00000 | 0.00006 |
| | water | 7732-18-5 | 75.00000 | 0.00005 |

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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Environmental Protection



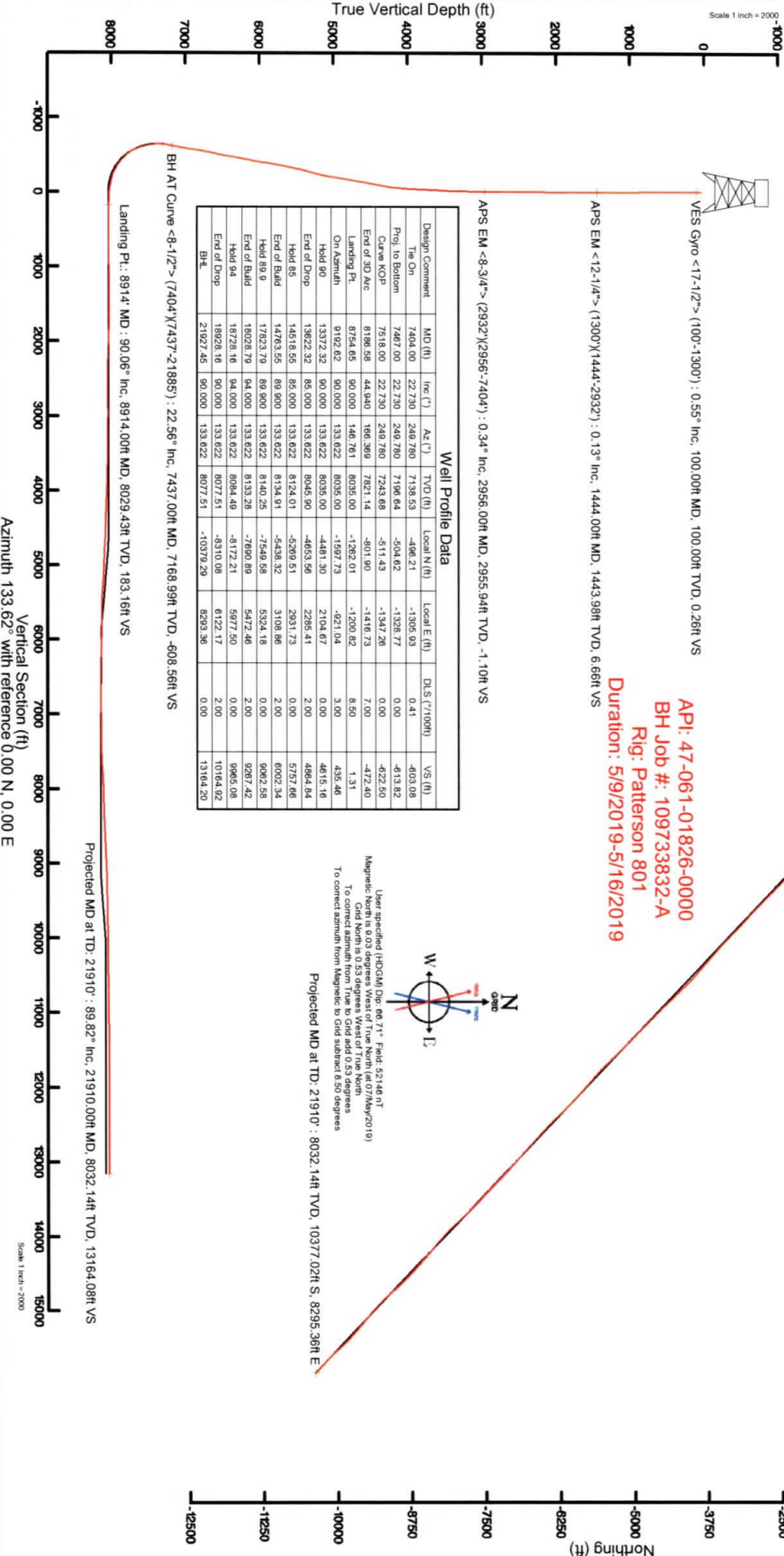
CNX GAS COMPANY, LLC
 Location: Monongalia County, WV
 Field: Monongalia
 Facility: WTN-5 Pad

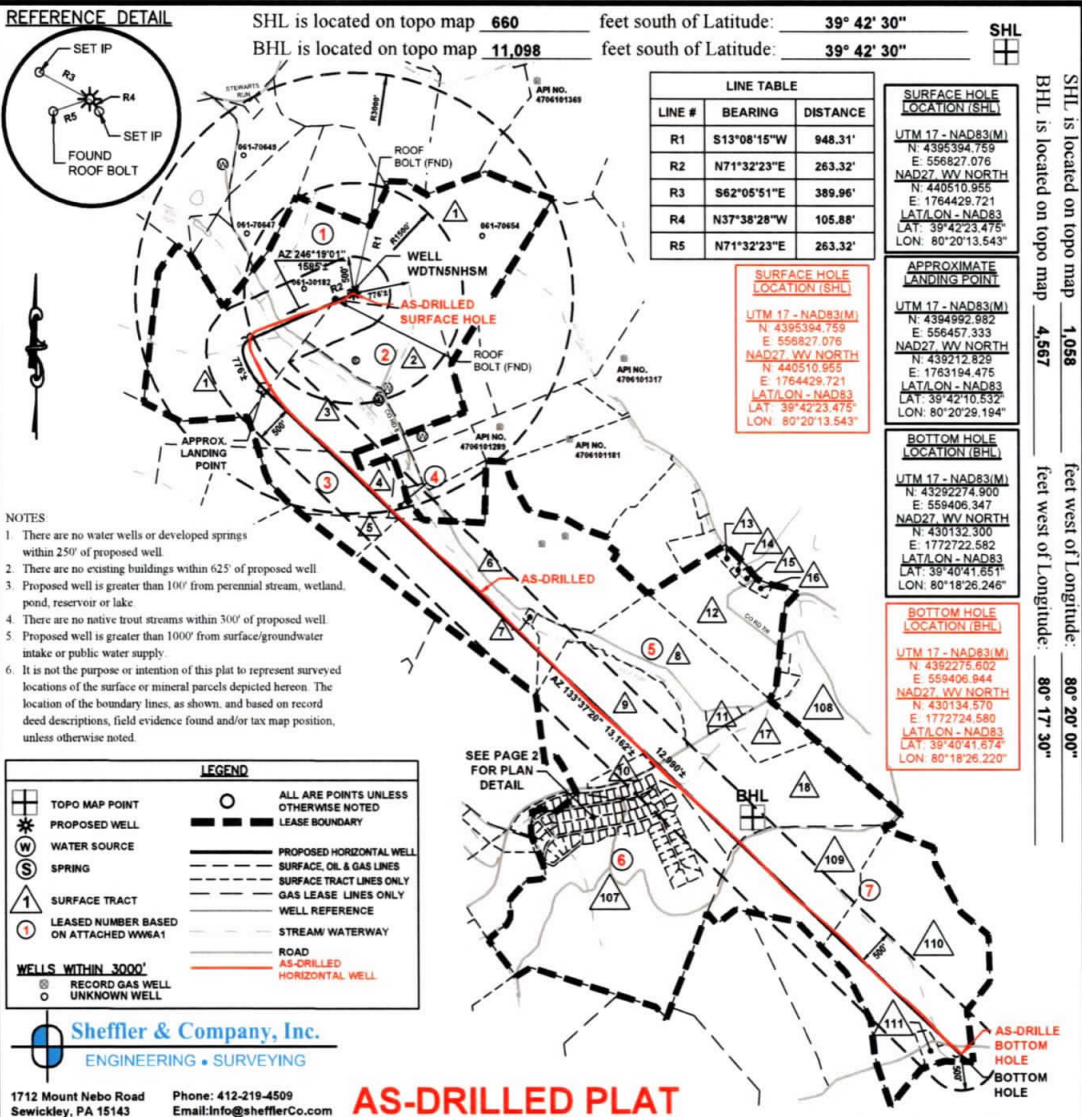
Slot: Slot N
 Well: WDTN-5N-HSM
 Wellbore: WDTN-5N-HSM-PWB



| | |
|---|---|
| RTG Reference: WTN-5N-HSM-PWB-0 | GIS System: NAD83 / Lambert West Virginia State Plane 57' NAD83 Zone 18 (N) US Feet |
| True vertical depths are referenced to Patterson 801 (R80) | North Reference: CGM zero |
| Measured depths are referenced to Patterson 801 (R80) | Scale: True distance |
| Patterson 801 (R80) to Mean Sea Level: 4,163.84 feet | Depths are in feet |
| Mean Sea Level to Mad line (AI Slot: Slot N): -1387.94 feet | Created by cadherm on 2019-05-17 |
| | Database: WA_MPL_ESTIMATES_Data |

| Location Information | | | | | |
|---|------------------|-------------------|----------------|----------------|--|
| Facility Name | GHD East (US Ft) | GHD North (US Ft) | Latitude | Longitude | |
| WTN-5 Pad | 1764427.450 | 440550.630 | 39°42'23.382"N | 80°20'14.303"W | |
| Slot | GHD East (US Ft) | GHD North (US Ft) | Latitude | Longitude | |
| Slot N | 1764429.720 | 440570.960 | 39°42'23.180"N | 80°20'14.272"W | |
| Patterson 801 (R80) to Mad line (AI Slot: Slot N) | | | 29ft | | |
| Mean Sea Level to Mad line (AI Slot: Slot N) | | | -1387.94ft | | |
| Patterson 801 (R80) to Mean Sea Level | | | 1410.94ft | | |





FILE #: **WDTN5NHSM**

DRAWING #: **3601 - WDTN5N - AD.DWG**

SCALE: **1"=2000'**

MINIMUM DEGREE OF ACCURACY: **1/2500**

PROVEN SOURCE OF ELEVATION: **USGS MONUMENT JX1864: 1,496.32'**

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 THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED: *[Signature]*

R.P.E.: **21452** L.L.S.: P.S. NO. _____



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

OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304

WELL Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: **DUNKARD CREEK** ELEVATION: **1412'**

COUNTY/DISTRICT: **MONONGALIA / BATTELLE** QUADRANGLE: **WADESTOWN, WV**

SURFACE OWNER: **JOHN M. WISE, ET UX., ET AL.** ACREAGE: **207.36**

OIL & GAS ROYALTY OWNER: **RICHARD W. WISE, ET AL.** ACREAGE: **207.36**

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: **MARCELLUS** ESTIMATED DEPTH: **TVD: 7,715' ± TMD: 21,610' ±**

WELL OPERATOR: **CNX GAS COMPANY, LLC** DESIGNATED AGENT: **CHRIS TURNER**
Address: **1000 CONSOL ENERGY DRIVE** Address: **1 DOMINION DRIVE**

City **CANONSBURG** State **PA** Zip Code **15317** City **JANE LEW** State **WV** Zip Code **26378**

DATE: **October 3, 2018, Rev. July 10, 2019**

OPERATOR'S WELL #: **WDTN5NHSM**

API WELL # **47 061**
STATE COUNTY PERMIT

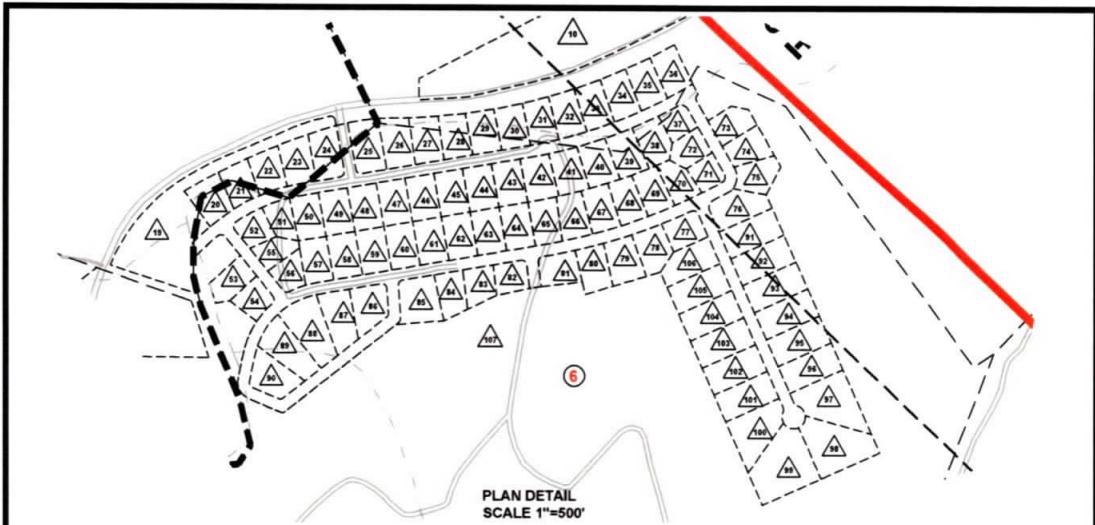
DATE: **October 3, 2018, Rev. July 10, 2019**

OPERATOR'S WELL #: **WDTN5NHSM**

API WELL # **47 061**
STATE COUNTY PERMIT

SHL is located on topo map **1,058** feet west of Longitude: **80° 20' 00"**

BHL is located on topo map **4,567** feet west of Longitude: **80° 17' 30"**



SURFACE TRACT OWNERS & TAX PARCEL

| | | | |
|-------------------------------------|--------------|-----------------------------------|--------------|
| 1. DINA M WISE ET AL | TM# 1-8-2 | 59. CNX RCPC LLC | TM# 1-13B-5 |
| 2. BARBARA J. WAGNER | TM# 1-8-3.1 | 60. CNX RCPC LLC | TM# 1-13B-6 |
| 3. BARBARA J. WAGNER | TM# 1-8-3 | 61. CNX RCPC LLC | TM# 1-13B-7 |
| 4. KENNETH W. & DONNA P. EFAW | TM# 1-8-5 | 62. CNX RCPC LLC | TM# 1-13B-8 |
| 5. KENNETH W. & DONNA P. EFAW | TM# 1-8-8 | 63. CNX RCPC LLC | TM# 1-13B-9 |
| 6. BARBARA S. SHRIVER | TM# 1-8-12 | 64. CNX RCPC LLC | TM# 1-13B-10 |
| 7. BARBARA S. & GREGORY L. SHRIVER | TM# 1-8-12.1 | 65. CNX RCPC LLC | TM# 1-13B-11 |
| 8. BARBARA S. SHRIVER | TM# 1-8-24 | 66. CNX RCPC LLC | TM# 1-13B-12 |
| 9. HOWARD A. SHRIVER ESTATE | TM# 1-8-24.1 | 67. CNX RCPC LLC | TM# 1-13B-13 |
| 10. JAMES A. & PAMELA L. WATSON | TM# 1-8-24.2 | 68. CNX RCPC LLC | TM# 1-13B-14 |
| 11. GREGORY LYNN SHRIVER | TM# 1-8-24.3 | 69. CNX RCPC LLC | TM# 1-13B-15 |
| 12. DONALD L. & LINDA L. WHITE | TM# 1-8-25 | 70. CNX RCPC LLC | TM# 1-13B-16 |
| 13. JACKIE & PEGGY SUE WILSON | TM# 1-8-25.1 | 71. CNX RCPC LLC | TM# 1-13B-17 |
| 14. JACKIE & PEGGY SUE WILSON | TM# 1-8-25.2 | 72. CNX RCPC LLC | TM# 1-13B-18 |
| 15. ERNEST & LINDA HARKER | TM# 1-8-25.3 | 73. CNX RCPC LLC | TM# 1-13B-19 |
| 16. RANDY DAVID & SANDRA HELMICK | TM# 1-8-25.4 | 74. CNX RCPC LLC | TM# 1-13B-20 |
| 17. MICHAEL TENNANT | TM# 1-8-36 | 75. CNX RCPC LLC | TM# 1-13B-21 |
| 18. CNX RCPC LLC | TM# 1-13-33 | 76. CNX RCPC LLC | TM# 1-13B-22 |
| 19. CNX RCPC LLC | TM# 1-13-24 | 77. CNX RCPC LLC | TM# 1-13B-23 |
| 20. CNX RCPC LLC | TM# 1-13B-87 | 78. CNX RCPC LLC | TM# 1-13B-24 |
| 21. CNX RCPC LLC | TM# 1-13B-86 | 79. CNX RCPC LLC | TM# 1-13B-41 |
| 22. CNX RCPC LLC | TM# 1-13B-85 | 80. CNX RCPC LLC | TM# 1-13B-42 |
| 23. CNX RCPC LLC | TM# 1-13B-84 | 81. CNX RCPC LLC | TM# 1-13B-43 |
| 24. CNX RCPC LLC | TM# 1-13B-83 | 82. CNX RCPC LLC | TM# 1-13B-44 |
| 25. CNX RCPC LLC | TM# 1-13B-82 | 83. CNX RCPC LLC | TM# 1-13B-45 |
| 26. CNX RCPC LLC | TM# 1-13B-81 | 84. DONNIE L. & BARBARA MCDUGAL | TM# 1-13B-46 |
| 27. CNX RCPC LLC | TM# 1-13B-80 | 85. ERIK DAVID PRIDE | TM# 1-13B-47 |
| 28. CNX RCPC LLC | TM# 1-13B-79 | 86. EDGAR J. & BETTY J. HUGGINS | TM# 1-13B-48 |
| 29. CNX RCPC LLC | TM# 1-13B-78 | 87. DAVID F. & VALERIE D. CONAWAY | TM# 1-13B-49 |
| 30. CNX RCPC LLC | TM# 1-13B-77 | 88. PAT L. & BEVERLY K. PARK | TM# 1-13B-50 |
| 31. CNX RCPC LLC | TM# 1-13B-76 | 89. WILLIAM E. & MARY HARKER | TM# 1-13B-51 |
| 32. CNX RCPC LLC | TM# 1-13B-75 | 90. CNX RCPC LLC | TM# 1-13B-52 |
| 33. CNX RCPC LLC | TM# 1-13B-74 | 91. CNX RCPC LLC | TM# 1-13B-23 |
| 34. CNX RCPC LLC | TM# 1-13B-73 | 92. CNX RCPC LLC | TM# 1-13B-24 |
| 35. CNX RCPC LLC | TM# 1-13B-72 | 93. CNX RCPC LLC | TM# 1-13B-25 |
| 36. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-71 | 94. CNX RCPC LLC | TM# 1-13B-26 |
| 37. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-70 | 95. CNX RCPC LLC | TM# 1-13B-27 |
| 38. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-69 | 96. CNX RCPC LLC | TM# 1-13B-28 |
| 39. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-68 | 97. CNX RCPC LLC | TM# 1-13B-29 |
| 40. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-67 | 98. CNX RCPC LLC | TM# 1-13B-30 |
| 41. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-66 | 99. CNX RCPC LLC | TM# 1-13B-31 |
| 42. BASIL DAWSON | TM# 1-13B-65 | 100. CNX RCPC LLC | TM# 1-13B-32 |
| 43. SUSAN B. ROSS | TM# 1-13B-64 | 101. CNX RCPC LLC | TM# 1-13B-33 |
| 44. MITCHELL L. & LENA D. HOLMES | TM# 1-13B-63 | 102. CNX RCPC LLC | TM# 1-13B-34 |
| 45. LEROY W. & BARBARA J. NUCE | TM# 1-13B-62 | 103. CNX RCPC LLC | TM# 1-13B-35 |
| 46. DAVID K. & PAMELA S. RUSH | TM# 1-13B-61 | 104. CNX RCPC LLC | TM# 1-13B-36 |
| 47. JOHN R. & KATHY J. HOCKENBERRY | TM# 1-13B-60 | 105. CNX RCPC LLC | TM# 1-13B-37 |
| 48. JIMMIE JR. & MARCIA L. BARTLETT | TM# 1-13B-59 | 106. CNX RCPC LLC | TM# 1-13B-38 |
| 49. ROY DALE CHISLER ET AL. | TM# 1-13B-58 | 107. CNX RCPC LLC | TM# 1-13-25 |
| 50. ERNEST E. & LINDA L. HARKER | TM# 1-13B-57 | 108. WOLFEN KNOB DEVELOPMENT | TM# 1-8-33.1 |
| 51. CNX RCPC LLC | TM# 1-13B-56 | 109. W. BRENT LEGAN | TM# 1-13-32 |
| 52. CNX RCPC LLC | TM# 1-13B-55 | 110. W. BRENT LEGAN | TM# 1-13-36 |
| 53. CNX RCPC LLC | TM# 1-13B-54 | 111. VERNON L. SIMPSON | TM# 1-13-37 |
| 54. CNX RCPC LLC | TM# 1-13B-53 | | |
| 55. CNX RCPC LLC | TM# 1-13B-1 | | |
| 56. CNX RCPC LLC | TM# 1-13B-2 | | |
| 57. CNX RCPC LLC | TM# 1-13B-3 | | |
| 58. CNX RCPC LLC | TM# 1-13B-4 | | |

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



Sheffler & Company, Inc.
 ENGINEERING • SURVEYING

1712 Mount Nebo Road Phone: 412-219-4509
 Sewickley, PA 15143 Email: info@shefflerCo.com

DATE: **October 3, 2018, Rev. July 10, 2019**

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

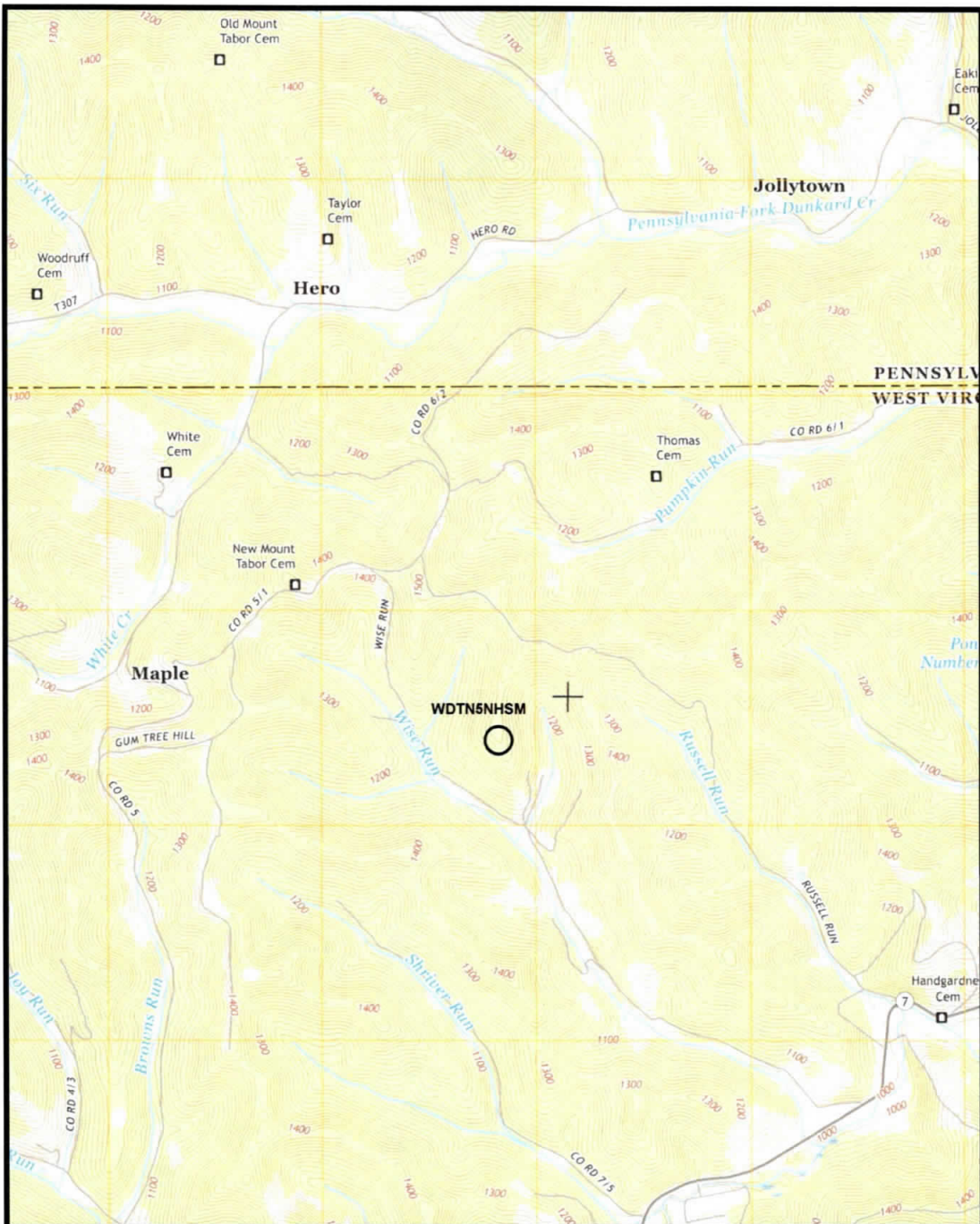
OPERATOR'S WELL #: **WDTN5NHSU**

API WELL # **47** **061**
 STATE COUNTY PERMIT

WATERSHED **DUNKARD CREEK** ELEVATION: **1412'**
 COUNTY/DISTRICT: **MONONGALIA / BATTLE** QUADRANGLE: **WADESTOWN, WV**
 SURFACE OWNER: **JOHN M. WISE, ET UX., ET AL.** ACREAGE: **207.36**
 OIL & GAS ROYALTY OWNER: **RICHARD W. WISE, ET AL.** ACREAGE: **207.36**

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: **MARCELLUS** ESTIMATED DEPTH: **TVD: 7,715' ± TMD: 21,610' ±**
 WELL OPERATOR: **CNX GAS COMPANY, LLC** DESIGNATED AGENT: **CHRIS TURNER**
 Address: **1000 CONSOL ENERGY DRIVE** Address: **1 DOMINION DRIVE**
 City **CANONSBURG** State **PA** Zip Code **15317** City **JANE LEW** State **WV** Zip Code **26378**



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304



DATE: October 3, 2018, Rev. July 10, 2019
 OPERATOR'S WELL #: WDTN5NHSU
 API WELL # 47 061
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: DUNKARD CREEK ELEVATION: 1412'
 COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE: WADESTOWN, WV
 SURFACE OWNER: JOHN M. WISE, ET UX., ET AL. ACREAGE: 207.36
 OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL. ACREAGE: 207.36

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,715' ± TMD: 21,610' ±
 WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER
 Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DRIVE
 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
|-------------------------------------|--|---------------------|--|------------------------|
| 1 | 1-8-2 | 189010000 | Richard L. McCauley | CNX Gas Company LLC |
| | | | Judy A. Eckman | CNX Gas Company LLC |
| | | | Thomas E. McCauley | CNX Gas Company LLC |
| | | | Regina Wise Myers, aka Violet Regina Myers | CNX Gas Company LLC |
| | | | Evalae A. Everly Shaheen | CNX Gas Company LLC |
| | | | Zelda Ruth Brummage | CNX Gas Company LLC |
| | | | Dexter Murie Stewart | CNX Gas Company LLC |
| | | | Walter C. Ord | CNX Gas Company LLC |
| | | | James Freeman Stewart | CNX Gas Company LLC |
| | | | Clifford J. Wise | CNX Gas Company LLC |
| | | | Victor E. Wise, a single man | CNX Gas Company LLC |
| | | | Jesse D. Jones, a married man | CNX Gas Company LLC |
| | | | Phyllis J. Patrosky, a widowed woman | CNX Gas Company LLC |
| | | | Annette E. Stewart, single | CNX Gas Company LLC |
| | | | Harold M. Jones, Jr., a single man | CNX Gas Company LLC |
| | | | Robert Stewart | CNX Gas Company LLC |
| | | | Richard W. Wise | CNX Gas Company LLC |
| | | | Walter R. Currence | CNX Gas Company LLC |
| | | | Donald D. Wise, aka Donald G. Wise | CNX Gas Company LLC |
| | | | Maureen S. Currence | CNX Gas Company LLC |
| | | | Opal Jane Wise, Life Estate Holder and John Matthew Wise and Dina M. Wise, Remaindermen | CNX Gas Company LLC |
| | | | Michelle L. Currence | CNX Gas Company LLC |
| | | | Justin P. Stewart, single | CNX Gas Company LLC |
| | | | Debra Goff | CNX Gas Company LLC |
| | | | Eleanor J. Wise, single | CNX Gas Company LLC |
| | | | Donald E. Nunley and Deborah L. Nunley | CNX Gas Company LLC |
| | | | Fred C. Wise and Alice F. Wise | CNX Gas Company LLC |
| | | | Patricia J. Mumaw and Richard L. Mumaw | CNX Gas Company LLC |
| | | | Richard A. Nunley and Diana K. Nunley | CNX Gas Company LLC |
| | | | Mary Nunley Stepelton and Donald Stepelton | CNX Gas Company LLC |
| | | | Linda Slapp | CNX Gas Company LLC |
| | | | Melissa A. Bookout | CNX Gas Company LLC |
| | | | Jane Irons, widow | CNX Gas Company LLC |
| | | | Eileen Ann Lyle | CNX Gas Company LLC |
| | | | Robert Eugene Michael, Sr. | CNX Gas Company LLC |
| | | | Frank Dennis Michael, Jr. | CNX Gas Company LLC |
| | | | Evelyn June Michael | CNX Gas Company LLC |
| | | | Tonya Chersin | CNX Gas Company LLC |
| Boyd Hawkins | CNX Gas Company LLC | | | |
| Becky L. Hawkins fka Becky Bortnick | CNX Gas Company LLC | | | |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 2 | 1-8-3 1-8-3.1 | 204769000 | Barbara J. Wagner, a widow | CNX Gas Company LLC |
| | | | Donald L. White, et al Arnold D. Anderson, individually, and as Trustee of the Arnold D. Anderson and Barbara J. Anderson Living Trust UTD May 14th, 2008 | CNX Gas Company LLC |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 3 | 1-8-6 | 189011000 | Kenneth W. Eflaw and Donna P. Eflaw | CNX Gas Company, LLC |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 4 | 1-8-6 | 189011000 | Kenneth W. Eflaw and Donna P. Eflaw | CNX Gas Company, LLC |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 5 | 1-8-8 1-8-12 1-8-24 1-8-24.1 1-8-24.2 1-8-24.3 1-8-25 1-8-25.1 1-8-25.2 1-8-25.3 1-8-25.4 1-8-36 1-13-23 1-13B-71 1-13B-72 1-13B-73 1-13B-74 1-8-33 1-8-33.1 1-13B-66, 67, 68, 69, 70, 75, 76 1-13B-77, 78, 79, 80, 81, 82 | 189993000 | S. H. Shiver and Lucretia Shiver, his wife | South Penn Oil Company |

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



1712 Mount Nebo Road Phone: 412-219-4509
Sewickley, PA 15143 Email: info@shefflerCo.com

DATE: October 3, 2018, Rev. July 10, 2019

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

OPERATOR'S WELL #: WDTN5NHSU

API WELL # 47 061
STATE COUNTY PERMIT

WATERSHED DUNKARD CREEK ELEVATION: 1412'
COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE: WADESTOWN, WV
SURFACE OWNER: JOHN M. WISE, ET UX., ET AL. ACREAGE: 207.36
OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL. ACREAGE: 207.36

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,715' ± TMD: 21,610' ±
WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER
Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DRIVE
City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

| Tract ID | Tax Map A Parcel | Title Opinion GLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
|----------|--|------------------------|--|---|
| 6 | 1-13-28 1-13B-1 through 71 1-13B-72 through 85 | 204578000 | Norman Core, Gregory Shriver, and Francis M. Bland, Trustees of West Warren Baptist Church | CNG Producing Company |
| | | | William B. Richardson | CNG Producing Company |
| | | | | |
| Tract ID | Tax Map A Parcel | Title Opinion GLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 7 | 1-13-32 1-13-36 | 243483000 | William B. Legan and Michele R. Legan, Individually and as h/w, Zana L. Legan | Dominion Exploration and Production, Inc. |

(+) DENOTES LOCATION OF
WELL ON UNITED STATES
TOPOGRAPHIC MAPS
WVDEP
OFFICE OF OIL & GAS
601 57TH STREET
CHARLESTON, WV 25304



Sheffler & Company, Inc.
ENGINEERING • SURVEYING

1712 Mount Nebo Road Phone: 412-219-4509
Sewickley, PA 15143 Email: info@shefflerCo.com

DATE: October 3, 2018, Rev. July 10, 2019

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

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PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS

ESTIMATED DEPTH: TVD: 7,715' ± TMD: 21,610' ±

WELL OPERATOR: CNX GAS COMPANY, LLC

DESIGNATED AGENT: CHRIS TURNER

Address: 1000 CONSOL ENERGY DRIVE

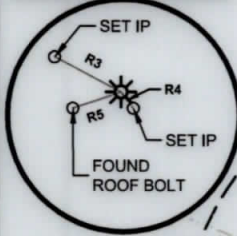
Address: 1 DOMINION DRIVE

City CANONSBURG State PA Zip Code 15317

City JANE LEW State WV Zip Code 26378

REFERENCE DETAIL

SHL is located on topo map 660 feet south of Latitude: 39° 42' 30"
 BHL is located on topo map 11,098 feet south of Latitude: 39° 42' 30"



| LINE # | BEARING | DISTANCE |
|--------|-------------|----------|
| R1 | S13°08'15"W | 948.31' |
| R2 | N71°32'23"E | 263.32' |
| R3 | S62°05'51"E | 389.96' |
| R4 | N37°38'28"W | 105.88' |
| R5 | N71°32'23"E | 263.32' |

SURFACE HOLE LOCATION (SHL)
 UTM 17 - NAD83(M)
 N: 4395394.759
 E: 556827.076
 NAD27 W.W. NORTH
 N: 440510.955
 E: 1764429.721
 LAT/LON - NAD83
 LAT: 39°42'23.475"
 LON: 80°20'13.543"

APPROXIMATE LANDING POINT
 UTM 17 - NAD83(M)
 N: 4394992.982
 E: 556457.333
 NAD27 W.W. NORTH
 N: 439212.829
 E: 1763194.475
 LAT/LON - NAD83
 LAT: 39°42'10.532"
 LON: 80°20'29.194"

BOTTOM HOLE LOCATION (BHL)
 UTM 17 - NAD83(M)
 N: 43282274.900
 E: 559406.347
 NAD27 W.W. NORTH
 N: 430132.300
 E: 1772722.582
 LAT/LON - NAD83
 LAT: 39°40'41.651"
 LON: 80°18'26.246"

BOTTOM HOLE LOCATION (BHL)
 UTM 17 - NAD83(M)
 N: 4392275.602
 E: 559406.944
 NAD27 W.W. NORTH
 N: 430134.570
 E: 1772724.580
 LAT/LON - NAD83
 LAT: 39°40'41.674"
 LON: 80°18'26.220"

NOTES:

- There are no water wells or developed springs within 250' of proposed well.
- There are no existing buildings within 625' of proposed well.
- Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
- There are no native trout streams within 300' of proposed well.
- Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
- It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, and based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.

LEGEND

| | |
|---------------------------------------|---------------------------------------|
| TOPO MAP POINT | ALL ARE POINTS UNLESS OTHERWISE NOTED |
| PROPOSED WELL | LEASE BOUNDARY |
| WATER SOURCE | PROPOSED HORIZONTAL WELL |
| SPRING | SURFACE, OIL & GAS LINES |
| SURFACE TRACT | SURFACE TRACT LINES ONLY |
| LEASED NUMBER BASED ON ATTACHED WW6A1 | GAS LEASE LINES ONLY |
| | WELL REFERENCE |
| | STREAM/WATERWAY |
| | ROAD |
| | AS-DRILLED HORIZONTAL WELL |

WELLS WITHIN 3000'
 RECORD GAS WELL
 UNKNOWN WELL

Sheffler & Company, Inc.
 ENGINEERING • SURVEYING

1712 Mount Nebo Road Phone: 412-219-4509
 Sewickley, PA 15143 Email: info@shefflerCo.com

AS-DRILLED PLAT

FILE #: WDTN5NHSM
 DRAWING #: 3601 - WDTN5N - AD.DWG
 SCALE: 1"=2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: USGS MONUMENT JX1864: 1,496.32'

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 THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SIGNED:
 R.P.E.: 21452 L.L.S.: P.S. NO.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304



DATE: October 3, 2018, Rev. July 10, 2019
 OPERATOR'S WELL #: WDTN5NHSM
 API WELL # 47 061 01826
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

WATERSHED: DUNKARD CREEK ELEVATION: 1412'
 COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE: WADESTOWN, WV
 SURFACE OWNER: JOHN M. WISE, ET UX., ET AL. ACREAGE: 207.36
 OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL. ACREAGE: 207.36

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 7,715' ± TMD: 21,610' ±
 WELL OPERATOR: CNX GAS COMPANY, LLC DESIGNATED AGENT: CHRIS TURNER
 Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DRIVE
 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

SHL is located on topo map 1,058 feet west of Longitude: 80° 20' 00"
 BHL is located on topo map 4,567 feet west of Longitude: 80° 17' 30"



CNX GAS COMPANY, LLC

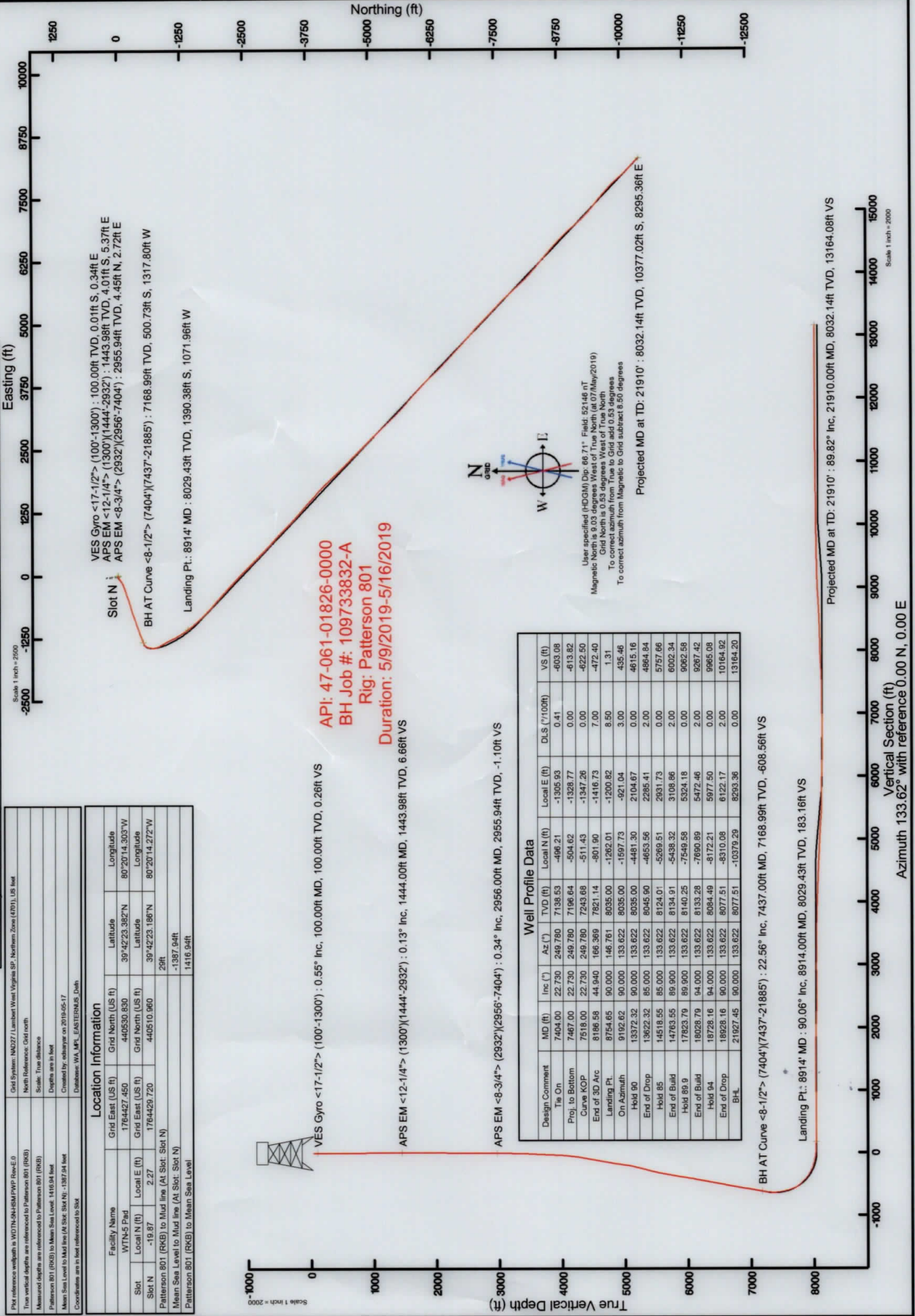
Location: Monongalia County, WV
Field: Monongalia
Facility: WTN-5 Pad

Slot: Slot N
Well: WDTN-5N-HSM
Wellbore: WDTN-5N-HSM PWB

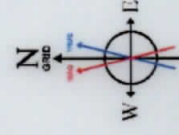


| | |
|--|--|
| Grid System: NAD83 / Lambert West Virginia SP, Northern Zone (4701), US feet | |
| North Reference: Grid north | |
| Scale: True distance | |
| Measured depths are referenced to Patterson 801 (RKB) | |
| Patterson 801 (RKB) to Mean Sea Level: 1416.94 feet | |
| Mean Sea Level to Mud line (At Slot: Slot N): -1387.94 feet | |
| Coordinates are in feet referenced to Slot | |

| Location Information | | | |
|---|-------------------|--------------------|----------------|
| Facility Name | Grid East (US ft) | Grid North (US ft) | Longitude |
| WTN-5 Pad | 1764427.450 | 440530.830 | 80°20'14.303"W |
| Slot | Local E (ft) | Grid North (US ft) | Longitude |
| Slot N | -19.87 | 1764428.720 | 80°20'14.272"W |
| Patterson 801 (RKB) to Mud line (At Slot: Slot N) | | | |
| Mean Sea Level to Mud line (At Slot: Slot N) | | | |
| Patterson 801 (RKB) to Mean Sea Level | | | |



API: 47-061-01826-0000
BH Job #: 109733832-A
Rig: Patterson 801
Duration: 5/9/2019-5/16/2019



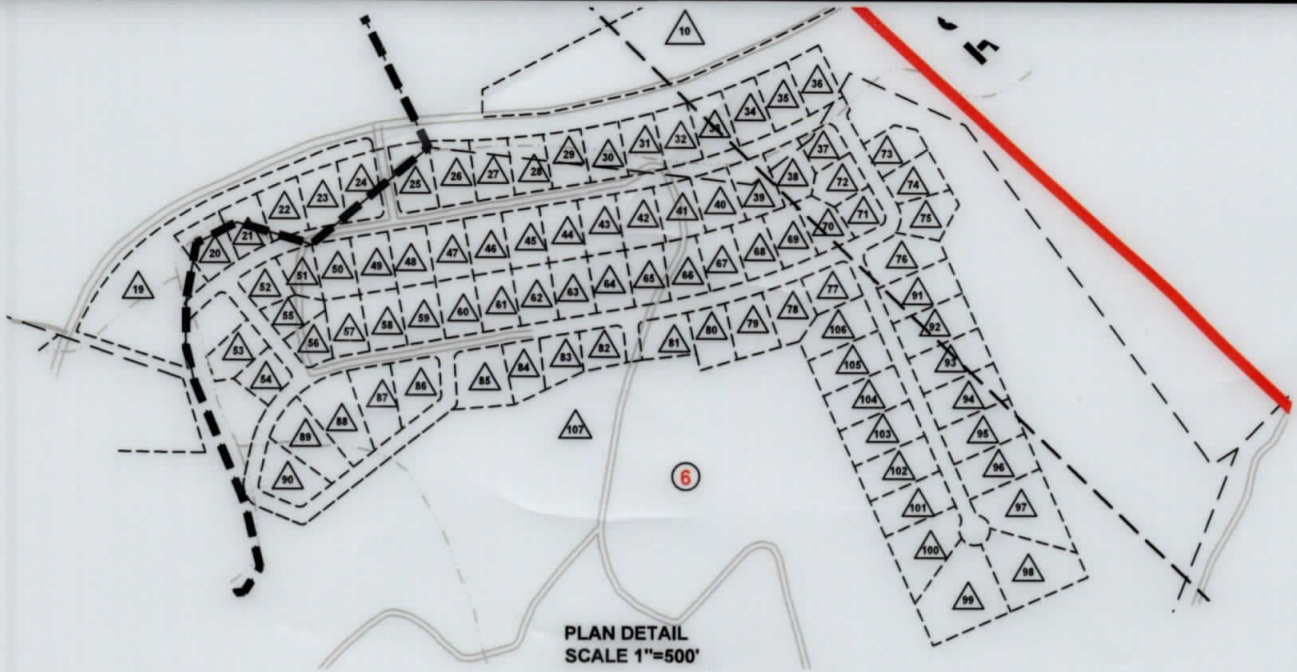
User specified (HDGM) Dip: 66.71° Field: 52146 nT
Magnetic North is 9.03 degrees West of True North (at 07/May/2019)
Grid North is 0.53 degrees West of True North
To correct azimuth from True to Grid add 0.53 degrees
To correct azimuth from Magnetic to Grid subtract 8.50 degrees

| Well Profile Data | | | | | | |
|-------------------|----------|---------|---------|----------|--------------|--------------|
| Design Comment | MD (ft) | Inc (") | Az (°) | TVD (ft) | Local N (ft) | Local E (ft) |
| Tie On | 7404.00 | 22.730 | 249.780 | 7138.53 | -496.21 | -1395.93 |
| Proj. to Bottom | 7467.00 | 22.730 | 249.780 | 7196.64 | -504.62 | -1328.77 |
| Curve KOP | 7518.00 | 22.730 | 249.780 | 7243.68 | -511.43 | -1347.26 |
| End of 3D Arc | 8186.58 | 44.940 | 166.389 | 7921.14 | -801.90 | -1416.73 |
| Landing Pt. | 8754.65 | 90.000 | 146.761 | 8035.00 | -1262.01 | -1200.82 |
| On Azimuth | 9192.62 | 90.000 | 133.622 | 8035.00 | -1597.73 | -921.04 |
| Hold 90 | 13872.32 | 85.000 | 133.622 | 8035.00 | -4481.30 | 2104.67 |
| End of Drop | 13822.32 | 85.000 | 133.622 | 8045.90 | -4653.56 | 2285.41 |
| Hold 85 | 14518.55 | 85.000 | 133.622 | 8124.01 | -5269.51 | 2931.73 |
| End of Build | 14763.55 | 89.900 | 133.622 | 8134.91 | -5438.32 | 3108.86 |
| Hold 89.9 | 17823.79 | 89.900 | 133.622 | 8140.25 | -7549.58 | 5324.18 |
| End of Build | 18028.79 | 94.000 | 133.622 | 8133.28 | -7690.89 | 5472.46 |
| Hold 94 | 18728.16 | 94.000 | 133.622 | 8084.49 | -8172.21 | 5977.50 |
| End of Drop | 18928.16 | 90.000 | 133.622 | 8077.51 | -8310.08 | 6122.17 |
| BHL | 21927.45 | 90.000 | 133.622 | 8077.51 | -10379.29 | 8293.36 |

BH AT Curve <8-1/2"> (7404')(7437'-21885') : 22.56° Inc, 7437.00ft MD, 7168.99ft TVD, -608.56ft VS

Landing Pt.: 8914' MD : 90.06° Inc, 8914.00ft MD, 8029.43ft TVD, 183.16ft VS

Projected MD at TD: 21910' : 89.82' Inc, 21910.00ft MD, 8032.14ft TVD, 13164.08ft VS



PLAN DETAIL
SCALE 1"=500'

SURFACE TRACT OWNERS & TAX PARCEL

| | | | |
|-------------------------------------|--------------|-----------------------------------|--------------|
| 1. DINA M WISE ET AL | TM# 1-8-2 | 59. CNX RCPC LLC | TM# 1-13B-5 |
| 2. BARBARA J. WAGNER | TM# 1-8-3,1 | 60. CNX RCPC LLC | TM# 1-13B-6 |
| 3. BARBARA J. WAGNER | TM# 1-8-3 | 61. CNX RCPC LLC | TM# 1-13B-7 |
| 4. KENNETH W. & DONNA P. EFAW | TM# 1-8-5 | 62. CNX RCPC LLC | TM# 1-13B-8 |
| 5. KENNETH W. & DONNA P. EFAW | TM# 1-8-8 | 63. CNX RCPC LLC | TM# 1-13B-9 |
| 6. BARBARA S. SHRIVER | TM# 1-8-12 | 64. CNX RCPC LLC | TM# 1-13B-10 |
| 7. BARBARA S. & GREGORY L. SHRIVER | TM# 1-8-12,1 | 65. CNX RCPC LLC | TM# 1-13B-11 |
| 8. BARBARA S. SHRIVER | TM# 1-8-24 | 66. CNX RCPC LLC | TM# 1-13B-12 |
| 9. HOWARD A. SHRIVER ESTATE | TM# 1-8-24,1 | 67. CNX RCPC LLC | TM# 1-13B-13 |
| 10. JAMES A. & PAMELA L. WATSON | TM# 1-8-24,2 | 68. CNX RCPC LLC | TM# 1-13B-14 |
| 11. GREGORY LYNN SHRIVER | TM# 1-8-24,3 | 69. CNX RCPC LLC | TM# 1-13B-15 |
| 12. DONALD L. & LINDA L. WHITE | TM# 1-8-25 | 70. CNX RCPC LLC | TM# 1-13B-16 |
| 13. JACKIE & PEGGY SUE WILSON | TM# 1-8-25,1 | 71. CNX RCPC LLC | TM# 1-13B-17 |
| 14. JACKIE & PEGGY SUE WILSON | TM# 1-8-25,2 | 72. CNX RCPC LLC | TM# 1-13B-18 |
| 15. ERNEST & LINDA HARKER | TM# 1-8-25,3 | 73. CNX RCPC LLC | TM# 1-13B-19 |
| 16. RANDY DAVID & SANDRA HELMICK | TM# 1-8-25,4 | 74. CNX RCPC LLC | TM# 1-13B-20 |
| 17. MICHAEL TENNANT | TM# 1-8-36 | 75. CNX RCPC LLC | TM# 1-13B-21 |
| 18. CNX RCPC LLC | TM# 1-13-33 | 76. CNX RCPC LLC | TM# 1-13B-22 |
| 19. CNX RCPC LLC | TM# 1-13-24 | 77. CNX RCPC LLC | TM# 1-13B-39 |
| 20. CNX RCPC LLC | TM# 1-13B-87 | 78. CNX RCPC LLC | TM# 1-13B-40 |
| 21. CNX RCPC LLC | TM# 1-13B-86 | 79. CNX RCPC LLC | TM# 1-13B-41 |
| 22. CNX RCPC LLC | TM# 1-13B-85 | 80. CNX RCPC LLC | TM# 1-13B-42 |
| 23. CNX RCPC LLC | TM# 1-13B-84 | 81. CNX RCPC LLC | TM# 1-13B-43 |
| 24. CNX RCPC LLC | TM# 1-13B-83 | 82. CNX RCPC LLC | TM# 1-13B-44 |
| 25. CNX RCPC LLC | TM# 1-13B-82 | 83. CNX RCPC LLC | TM# 1-13B-45 |
| 26. CNX RCPC LLC | TM# 1-13B-81 | 84. DONNIE L. & BARBARA MCDOUGAL | TM# 1-13B-46 |
| 27. CNX RCPC LLC | TM# 1-13B-80 | 85. ERIK DAVID PRIDE | TM# 1-13B-47 |
| 28. CNX RCPC LLC | TM# 1-13B-79 | 86. EDGAR J. & BETTY J. HUGGINS | TM# 1-13B-48 |
| 29. CNX RCPC LLC | TM# 1-13B-78 | 87. DAVID F. & VALERIE D. CONAWAY | TM# 1-13B-49 |
| 30. CNX RCPC LLC | TM# 1-13B-77 | 88. PAT L. & BEVERLY K. PARK | TM# 1-13B-50 |
| 31. CNX RCPC LLC | TM# 1-13B-76 | 89. WILLIAM E. & MARY HARKER | TM# 1-13B-51 |
| 32. CNX RCPC LLC | TM# 1-13B-75 | 90. CNX RCPC LLC | TM# 1-13B-52 |
| 33. CNX RCPC LLC | TM# 1-13B-74 | 91. CNX RCPC LLC | TM# 1-13B-23 |
| 34. CNX RCPC LLC | TM# 1-13B-73 | 92. CNX RCPC LLC | TM# 1-13B-24 |
| 35. CNX RCPC LLC | TM# 1-13B-72 | 93. CNX RCPC LLC | TM# 1-13B-25 |
| 36. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-71 | 94. CNX RCPC LLC | TM# 1-13B-26 |
| 37. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-70 | 95. CNX RCPC LLC | TM# 1-13B-27 |
| 38. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-69 | 96. CNX RCPC LLC | TM# 1-13B-28 |
| 39. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-68 | 97. CNX RCPC LLC | TM# 1-13B-29 |
| 40. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-67 | 98. CNX RCPC LLC | TM# 1-13B-30 |
| 41. CONSOLIDATED GAS TRANSMISSION | TM# 1-13B-66 | 99. CNX RCPC LLC | TM# 1-13B-31 |
| 42. BASIL DAWSON | TM# 1-13B-65 | 100. CNX RCPC LLC | TM# 1-13B-32 |
| 43. SUSAN B. ROSS | TM# 1-13B-64 | 101. CNX RCPC LLC | TM# 1-13B-33 |
| 44. MITCHELL L. & LENA D. HOLMES | TM# 1-13B-63 | 102. CNX RCPC LLC | TM# 1-13B-34 |
| 45. LEROY W. & BARBARA J. NUCE | TM# 1-13B-62 | 103. CNX RCPC LLC | TM# 1-13B-35 |
| 46. DAVID K. & PAMELA S. RUSH | TM# 1-13B-61 | 104. CNX RCPC LLC | TM# 1-13B-36 |
| 47. JOHN R. & KATHY J. HOCKENBERRY | TM# 1-13B-60 | 105. CNX RCPC LLC | TM# 1-13B-37 |
| 48. JIMMIE JR. & MARCIA L. BARTLETT | TM# 1-13B-59 | 106. CNX RCPC LLC | TM# 1-13B-38 |
| 49. ROY DALE CHISLER ET AL. | TM# 1-13B-58 | 107. CNX RCPC LLC | TM# 1-13-25 |
| 50. ERNEST E. & LINDA L. HARKER | TM# 1-13B-57 | 108. WOLFFEN KNOB DEVELOPMENT | TM# 1-8-33,1 |
| 51. CNX RCPC LLC | TM# 1-13B-56 | 109. W. BRENT LEGAN | TM# 1-13-32 |
| 52. CNX RCPC LLC | TM# 1-13B-55 | 110. W. BRENT LEGAN | TM# 1-13-36 |
| 53. CNX RCPC LLC | TM# 1-13B-54 | 111. VERNON L. SIMPSON | TM# 1-13-37 |
| 54. CNX RCPC LLC | TM# 1-13B-53 | | |
| 55. CNX RCPC LLC | TM# 1-13B-1 | | |
| 56. CNX RCPC LLC | TM# 1-13B-2 | | |
| 57. CNX RCPC LLC | TM# 1-13B-3 | | |
| 58. CNX RCPC LLC | TM# 1-13B-4 | | |

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ELEVATION: 1412'

COUNTY/DISTRICT: MONONGALIA / BATTELLE

QUADRANGLE: WADESTOWN, WV

SURFACE OWNER: JOHN M. WISE, ET UX., ET AL.

ACREAGE: 207.36

OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL.

ACREAGE: 207.36

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON
CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY)

TARGET FORMATION: MARCELLUS

ESTIMATED DEPTH: TVD: 7,715' ± TMD: 21,610' ±

WELL OPERATOR: CNX GAS COMPANY, LLC

DESIGNATED AGENT: CHRIS TURNER

Address: 1000 CONSOL ENERGY DRIVE

Address: 1 DOMINION DRIVE

City CANONSBURG State PA Zip Code 15317

City JANE LEW State WV Zip Code 26378

| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
|---------------------------------------|--|---------------------|--|------------------------|
| 1 | 1-8-2 | 159010000 | Richard L. McCauley | CNX Gas Company LLC |
| | | | Judy A. Eckman | CNX Gas Company LLC |
| | | | Thomas E. McCauley | CNX Gas Company LLC |
| | | | Regina Wise Myers, aka Violet Regina Myers | CNX Gas Company LLC |
| | | | Evalae A. Everly Shaheen | CNX Gas Company LLC |
| | | | Zelda Ruth Brummage | CNX Gas Company LLC |
| | | | Dexter Murle Stewart | CNX Gas Company LLC |
| | | | Walter C. Ord | CNX Gas Company LLC |
| | | | James Freeman Stewart | CNX Gas Company LLC |
| | | | Clifford J. Wise | CNX Gas Company LLC |
| | | | Victor E. Wise, a single man | CNX Gas Company LLC |
| | | | Jesse D. Jones, a married man | CNX Gas Company LLC |
| | | | Phyllis J. Petrosky, a widowed woman | CNX Gas Company LLC |
| | | | Annette E. Stewart, single | CNX Gas Company LLC |
| | | | Harold M. Jones, Jr., a single man | CNX Gas Company LLC |
| | | | Robert Stewart | CNX Gas Company LLC |
| | | | Richard W. Wise | CNX Gas Company LLC |
| | | | Walter R. Currence | CNX Gas Company LLC |
| | | | Donald D. Wise, aka Donald G. Wise | CNX Gas Company LLC |
| | | | Maureen S. Currence | CNX Gas Company LLC |
| | | | Opal Jane Wise, Life Estate Holder and John Matthew Wise and Dina M. Wise, Remaindermen | CNX Gas Company LLC |
| | | | Michelle L. Currence | CNX Gas Company LLC |
| | | | Justin P. Stewart, single | CNX Gas Company LLC |
| | | | Debra Goff | CNX Gas Company LLC |
| | | | Eleanor J. Wise, single | CNX Gas Company LLC |
| | | | Donald E. Nunley and Deborah L. Nunley | CNX Gas Company LLC |
| | | | Fred C. Wise and Alice F. Wise | CNX Gas Company LLC |
| | | | Patricia J. Mumaw and Richard L. Mumaw | CNX Gas Company LLC |
| | | | Richard A. Nunley and Diana K. Nunley | CNX Gas Company LLC |
| | | | Mary Nunley Stepletton and Donald Stepletton | CNX Gas Company LLC |
| | | | Linda Stapp | CNX Gas Company LLC |
| | | | Melissa A. Bookout | CNX Gas Company LLC |
| | | | Jane Irons, widow | CNX Gas Company LLC |
| | | | Eileen Ann Lyle | CNX Gas Company LLC |
| Robert Eugene Michael, Sr. | CNX Gas Company LLC | | | |
| Frank Dennis Michael, Jr. | CNX Gas Company LLC | | | |
| Evelyn June Michael | CNX Gas Company LLC | | | |
| Tonya Chersin | CNX Gas Company LLC | | | |
| Boyd Hawkins | CNX Gas Company LLC | | | |
| Becky L. Hawkins f/k/a Becky Bortnick | CNX Gas Company LLC | | | |
| | | | | |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 2 | 1-8-3 1-8-3.1 | 204769000 | Barbara J. Wagner, a widow | CNX Gas Company LLC |
| | | | Donald L. White, et al | CNX Gas Company LLC |
| | | | Arnold D. Anderson, individually, and as Trustee of the Arnold D. Anderson and Barbara J. Anderson Living Trust UTD May 14th, 2008 | CNX Gas Company LLC |
| | | | | |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 3 | 1-8-5 | 189011000 | Kenneth W. Efav and Donna P. Efav | CNX Gas Company, LLC |
| | | | | |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 4 | 1-8-5 | 189011000 | Kenneth W. Efav and Donna P. Efav | CNX Gas Company, LLC |
| | | | | |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 5 | 1-8-5 1-8-12 1-8-12.1 1-8-24 1-8-24.1 1-8-24.2 1-8-24.3 1-8-25 1-8-25.1 1-8-25.2 1-8-25.3 1-8-25.4 1-8-36 1-13-33 1-13B-71 1-13B-72 1-13B-73 1-13B-74 1-8-33 1-8-33.1 1-13B-65, 67, 68, 69, 70, 75, 76 1-13B-77, 78, 79, 80, 81, 82 | 189893000 | S. H. Shiver and Lucretia Shiver, his wife | South Penn Oil Company |
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(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304



Sheffler & Company, Inc.
ENGINEERING • SURVEYING
1712 Mount Nebo Road Sewickley, PA 15143 Phone: 412-219-4509 Email: info@shefflerCo.com

DATE: October 3, 2018, Rev. July 10, 2019

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

OPERATOR'S WELL #: WDTN5NHSU
API WELL # 47 061 01824
STATE COUNTY PERMIT

WATERSHED: DUNKARD CREEK

ELEVATION: 1412'

COUNTY/DISTRICT: MONONGALIA / BATTELLE

QUADRANGLE: WADESTOWN, WV

SURFACE OWNER: JOHN M. WISE, ET UX., ET AL.

ACREAGE: 207.36

OIL & GAS ROYALTY OWNER: RICHARD W. WISE, ET AL.

ACREAGE: 207.36

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WELL OPERATOR: CNX GAS COMPANY, LLC

DESIGNATED AGENT: CHRIS TURNER

Address: 1000 CONSOL ENERGY DRIVE

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City CANONSBURG State PA Zip Code 15317

City JANE LEW State WV Zip Code 26378

| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
|----------|--|---------------------|--|---|
| 6 | 1-13-25 1-13B-1 through 71 1-13B-72 through 85 | 204978000 | Norman Core, Gregory Shriver, and Francis M. Bland, Trustees of West Warren Baptist Church | CNG Producing Company |
| | | | William B. Richardson | CNG Producing Company |
| | | | | |
| Tract ID | Tax Map & Parcel | Title Opinion QLS # | Grantor, Lessor, etc | Grantee, Lessee, etc |
| 7 | 1-13-32 1-13-36 | 243453000 | William B. Legan and Michele R. Legan, individually and as h/w, Zana L. Legan | Dominion Exploration and Production, Inc. |

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP OFFICE OF OIL & GAS 601 57TH STREET CHARLESTON, WV 25304



Sheffler & Company, Inc.
ENGINEERING • SURVEYING
1712 Mount Nebo Road Sewickley, PA 15143 Phone: 412-219-4509 Email: info@shefflerCo.com

DATE: October 3, 2018, Rev. July 10, 2019

Well Type: Oil Waste Disposal Production Deep
 Gas Liquid Injection Storage Shallow

OPERATOR'S WELL #: WDTN5NHSU
API WELL # 47 061 01826
STATE COUNTY PERMIT

WATERSHED: DUNKARD CREEK ELEVATION: 1412'
COUNTY/DISTRICT: MONONGALIA / BATTELLE QUADRANGLE: WADESTOWN, WV
SURFACE OWNER: JOHN M. WISE, ET UX., ET AL. ACREAGE: 207.36
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