

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

API 47-051-02122 County Marshall District Franklin
Quad owhatan Point Pad Name Old Crow Field/Pool Name _____
Farm name Donna Vivian Yoho (TOD) Gary Lance Yoho Well Number Old Crow N-17HU
Operator (as registered with the OOG) Tug Hill Operating, LLC
Address 380 Southpointe Boulevard, Plaza II, Suite 200 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 4,403,192.43 Easting 520,289.72
Landing Point of Curve Northing 4,403,254.6 Easting 520,383.6
Bottom Hole Northing 4,407,466.2 Easting 517,947.4

Elevation (ft) 1286.73' 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; Base oil, osmotic inhibitor, weighting agent, viscosifier, emulsifier, hardness buffer, fluid loss additive, LCM, Shale inhibitor, de-foamer, soaping agent, coagulant, flocculant; specific additives per WSSP and Permit.

Date permit issued 12/26/2018 Date drilling commenced 4/16/2019 Date drilling ceased 3/14/2020
Date completion activities began 7/8/2020 Date completion activities ceased 8/1/2020
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A RECEIVED
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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 912' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1595' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 814-820', 906-912' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed by: [Signature]
05/07/2021
0202/12/2020

API 47-051 - 02122 Farm name Donna Vivian Yoho (TOD) Gary Lance Yoho Well number Old Crow N-17HU

| 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 | 36" | 30" | 100' | NEW | 94.5# | N/A | Y |
| Surface | 26" | 20" | 987' | NEW | 106.5# | N/A | Y |
| Coal | | | | | | | |
| Intermediate 1 | 17 1/2" | 13 3/8" | 2,830' | NEW | 54.5# | N/A | Y |
| Intermediate 2 | 12 1/4" | 9 5/8" | 10,245' | NEW | 47# | N/A | Y |
| Intermediate 3 | | | | | | | |
| Production | 8 1/2" | 5 1/2" | 27,734' | NEW | 23# | N/A | Y |
| Tubing | | 2 7/8" | 13,867' | NEW | 4.7# | N/A | |
| Packer type and depth set | | | | | | | |

Comment Details _____

| 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 | A | | 15.6 | 1.2 | | 0 | 8 |
| Surface | A | 1642 | 15.6 | 1.2 | 1983 | 0 | 8 |
| Coal | | | | | | | |
| Intermediate 1 | A | 1995 | 14.5 | 1.19 | 2627 | 0 | 8 |
| Intermediate 2 | A | 3837 | 14.5 | 1.19 | 4470 | 0 | 8 |
| Intermediate 3 | | | | | | | |
| Production | A | 5064 | 16.5 | 1.17 | 5669 | 0 | 8 |
| Tubing | | | | | | | |

Drillers TD (ft) 27,771' Loggers TD (ft) n/a
 Deepest formation penetrated Trenton Plug back to (ft) n/a
 Plug back procedure n/a

Kick off depth (ft) 10,368'

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 3 centralizers on surface casing at equal distance.
Intermediate - 1 centralizer every other joint.
 Production - one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

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 _____

API 47- 051 - 02122 Farm name Donna Vivian Yoho (TOD) Gary Lance Yoho Well number Old Crow N-17HU

PERFORATION RECORD

| Stage No. | Perforation date | Perforated from MD ft. | Perforated to MD ft. | Number of Perforations | Formation(s) |
|-----------|----------------------|------------------------|----------------------|------------------------|--------------|
| | *see attached | | | | |
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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) |
|-----------|-------------------|---------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| | *attached | | | | | | | |
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Please insert additional pages as applicable.

API 47- 051 - 02122 Farm name Donna Vivian Yoho (TOD) Gary Lance Yoho Well number Old Crow N-17HU

| <u>PRODUCING FORMATION(S)</u> | <u>DEPTHS</u> | |
|-------------------------------|--------------------------|-------------------------|
| <u>POINT PLEASANT</u> | <u>11358'-11051'</u> TVD | <u>11661'-27771'</u> 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 8000 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs
 OPEN FLOW Gas Oil NGL Water GAS MEASURED BY
500 mcfpd 0 bpd 0 bpd 550 bpd 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) |
|-------------------------|--------------------------------|------------------------------|--------------------------|-----------------------------|--|
| | <u>0</u> | | <u>0</u> | | |
| <u>*attached</u> | | | | | |
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Please insert additional pages as applicable.

Drilling Contractor Nabors Drilling USA
 Address 505 West Greens Road, Suite 1000 City Houston State TX Zip 77067
 Logging Company n/a
 Address _____ City _____ State _____ Zip _____
 Cementing Company Halliburton Energy Services, Inc.
 Address 121 Champion Way, Suite 200 City Canonsburg State PA Zip 15317
 Stimulating Company PRO FRAC
 Address 333 Shops Boulevard City Willow Park State TX Zip 76087

Please insert additional pages as applicable.

Completed by Amy L. Morris Telephone 304-376-0111
 Signature *Amy L. Morris* Title Permitting Specialist Date _____

**OLD CROW N-17HU
PEFORATION RECORD**

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| Stage No. | Perforation Date | Perforated from MD ft. | Perforated to MD. Ft. | Number of Perforations | Formation(s) |
|-----------|------------------|------------------------|-----------------------|------------------------|--------------|
| 1 | 7/8/2020 | 27596 | 27598 | 48 | Utica |
| 2 | 7/8/2020 | 27321 | 27496 | 48 | Utica |
| 3 | 7/9/2020 | 27121 | 27296 | 48 | Utica |
| 4 | 7/9/2020 | 26921 | 27096 | 48 | Utica |
| 5 | 7/9/2020 | 26720 | 26895 | 48 | Utica |
| 6 | 7/9/2020 | 26520 | 26695 | 48 | Utica |
| 7 | 7/10/2020 | 26319 | 26494 | 48 | Utica |
| 8 | 7/10/2020 | 26119 | 26294 | 48 | Utica |
| 9 | 7/10/2020 | 25918 | 26093 | 48 | Utica |
| 10 | 7/10/2020 | 25718 | 25893 | 48 | Utica |
| 11 | 7/11/2020 | 25517 | 25692 | 48 | Utica |
| 12 | 7/11/2020 | 25317 | 25492 | 48 | Utica |
| 13 | 7/13/2020 | 25117 | 25292 | 48 | Utica |
| 14 | 7/13/2020 | 24916 | 25091 | 48 | Utica |
| 15 | 7/14/2020 | 24716 | 24891 | 48 | Utica |
| 16 | 7/14/2020 | 24515 | 24690 | 48 | Utica |
| 17 | 7/14/2020 | 24315 | 24490 | 48 | Utica |
| 18 | 7/14/2020 | 24114 | 24289 | 48 | Utica |
| 19 | 7/15/2020 | 23914 | 24089 | 48 | Utica |
| 20 | 7/15/2020 | 23713 | 23888 | 48 | Utica |
| 21 | 7/15/2020 | 23513 | 23688 | 48 | Utica |
| 22 | 7/15/2020 | 23312 | 23487 | 48 | Utica |
| 23 | 7/16/2020 | 23112 | 23287 | 48 | Utica |
| 24 | 7/16/2020 | 22912 | 23087 | 48 | Utica |
| 25 | 7/16/2020 | 22711 | 22886 | 48 | Utica |
| 26 | 7/16/2020 | 22511 | 22686 | 48 | Utica |
| 27 | 7/16/2020 | 22310 | 22485 | 48 | Utica |
| 28 | 7/17/2020 | 22110 | 22285 | 48 | Utica |
| 29 | 7/17/2020 | 21909 | 22084 | 48 | Utica |
| 30 | 7/17/2020 | 21709 | 21884 | 48 | Utica |
| 31 | 7/17/2020 | 21508 | 21683 | 48 | Utica |
| 32 | 7/18/2020 | 21308 | 21483 | 48 | Utica |
| 33 | 7/18/2020 | 21108 | 21283 | 48 | Utica |
| 34 | 7/18/2020 | 20907 | 21082 | 48 | Utica |
| 35 | 7/20/2020 | 20707 | 20882 | 48 | Utica |
| 36 | 7/20/2020 | 20506 | 20681 | 48 | Utica |
| 37 | 7/21/2020 | 20306 | 20481 | 48 | Utica |
| 38 | 7/21/2020 | 20105 | 20280 | 48 | Utica |
| 39 | 7/21/2020 | 19905 | 20080 | 48 | Utica |
| 40 | 7/22/2020 | 19704 | 19879 | 48 | Utica |
| 41 | 7/22/2020 | 19504 | 19679 | 48 | Utica |

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| Stage No. | Perforation Date | Perforated from MD ft. | Perforated to MD. Ft. | Number of Perforations | Formation(s) |
|-----------|------------------|------------------------|-----------------------|------------------------|--------------|
| 42 | 7/22/2020 | 19303 | 19478 | 48 | Utica |
| 43 | 7/22/2020 | 19103 | 19278 | 48 | Utica |
| 44 | 7/22/2020 | 18903 | 19078 | 48 | Utica |
| 45 | 7/22/2020 | 18702 | 18877 | 48 | Utica |
| 46 | 7/23/2020 | 18502 | 18677 | 48 | Utica |
| 47 | 7/23/2020 | 18301 | 18476 | 48 | Utica |
| 48 | 7/23/2020 | 18101 | 18276 | 48 | Utica |
| 49 | 7/23/2020 | 17900 | 18075 | 48 | Utica |
| 50 | 7/23/2020 | 17700 | 17875 | 48 | Utica |
| 51 | 7/24/2020 | 17499 | 17674 | 48 | Utica |
| 52 | 7/24/2020 | 17299 | 17474 | 48 | Utica |
| 53 | 7/24/2020 | 17099 | 17274 | 48 | Utica |
| 54 | 7/24/2020 | 16898 | 17073 | 48 | Utica |
| 55 | 7/24/2020 | 16698 | 16873 | 48 | Utica |
| 56 | 7/25/2020 | 16497 | 16672 | 48 | Utica |
| 57 | 7/25/2020 | 16297 | 16472 | 48 | Utica |
| 58 | 7/25/2020 | 16096 | 16271 | 48 | Utica |
| 59 | 7/27/2020 | 15896 | 16071 | 48 | Utica |
| 60 | 7/27/2020 | 15695 | 15870 | 48 | Utica |
| 61 | 7/27/2020 | 15495 | 15670 | 48 | Utica |
| 62 | 7/28/2020 | 15294 | 15469 | 48 | Utica |
| 63 | 7/28/2020 | 15094 | 15269 | 48 | Utica |
| 64 | 7/28/2020 | 14894 | 15069 | 48 | Utica |
| 65 | 7/28/2020 | 14693 | 14868 | 48 | Utica |
| 66 | 7/29/2020 | 14493 | 14668 | 48 | Utica |
| 67 | 7/29/2020 | 14292 | 14467 | 48 | Utica |
| 68 | 7/29/2020 | 14092 | 14267 | 48 | Utica |
| 69 | 7/30/2020 | 13891 | 14066 | 48 | Utica |
| 70 | 7/30/2020 | 13691 | 13866 | 48 | Utica |
| 71 | 7/30/2020 | 13490 | 13665 | 48 | Utica |
| 72 | 7/30/2020 | 13290 | 13465 | 48 | Utica |
| 73 | 7/30/2020 | 13089 | 13264 | 48 | Utica |
| 74 | 7/31/2020 | 12889 | 13064 | 48 | Utica |
| 75 | 7/31/2020 | 12689 | 12864 | 48 | Utica |
| 76 | 7/31/2020 | 12488 | 12663 | 48 | Utica |
| 77 | 7/31/2020 | 12288 | 12463 | 48 | Utica |
| 78 | 7/31/2020 | 12087 | 12262 | 48 | Utica |
| 79 | 8/1/2020 | 11887 | 12062 | 48 | Utica |
| 80 | 8/1/2020 | 11686 | 11861 | 48 | Utica |

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**OLD CROW N-17HU
STIMULATION INFORMATION PER STAGE**

| Stage No. | Ave. Pump Rate (BPM) | Ave Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbls) | Amount of Nitrogen/other (units) |
|-----------|----------------------|------------------------------|------------------------------|-----------|--------------------------|------------------------|----------------------------------|
| 1 | 83 | 11143 | 48 | 6462 | 249970 | 7139 | 0 |
| 2 | 75 | 11713 | 48 | 6770 | 500290 | 10613 | 0 |
| 3 | 82 | 11217 | 48 | 6338 | 498861 | 10595 | 0 |
| 4 | 82 | 11021 | 48 | 6418 | 500483 | 11858 | 0 |
| 5 | 87 | 11974 | 48 | 7172 | 500090 | 10579 | 0 |
| 6 | 87 | 11929 | 48 | 6393 | 499920 | 10470 | 0 |
| 7 | 81 | 11116 | 48 | 6564 | 499182 | 10553 | 0 |
| 8 | 78 | 11052 | 48 | 6964 | 500329 | 10546 | 0 |
| 9 | 87 | 12130 | 48 | 7342 | 500518 | 10567 | 0 |
| 10 | 87 | 12030 | 48 | 7219 | 499885 | 10556 | 0 |
| 11 | 82 | 11522 | 48 | 7356 | 500000 | 10525 | 0 |
| 12 | 84 | 11858 | 48 | 6959 | 500528 | 10518 | 0 |
| 13 | 86 | 11967 | 48 | 6816 | 500528 | 10339 | 0 |
| 14 | 84 | 12226 | 48 | 6861 | 500310 | 10413 | 0 |
| 15 | 79 | 11145 | 48 | 6877 | 499766 | 10425 | 0 |
| 16 | 82 | 11108 | 48 | 6583 | 499907 | 10453 | 0 |
| 17 | 87 | 11832 | 48 | 7278 | 500275 | 10391 | 0 |
| 18 | 88 | 11732 | 48 | 7388 | 499705 | 10382 | 0 |
| 19 | 82 | 11199 | 48 | 7337 | 500032 | 10404 | 0 |
| 20 | 88 | 11838 | 48 | 7512 | 500326 | 10453 | 0 |
| 21 | 88 | 12051 | 48 | 6671 | 499948 | 10462 | 0 |
| 22 | 88 | 12116 | 48 | 7873 | 500092 | 10389 | 0 |
| 23 | 88 | 11822 | 48 | 7685 | 500189 | 10370 | 0 |
| 24 | 88 | 11767 | 48 | 7694 | 500837 | 10343 | 0 |
| 25 | 87 | 11942 | 48 | 8137 | 500375 | 10276 | 0 |
| 26 | 87 | 11767 | 48 | 7899 | 500499 | 10281 | 0 |
| 27 | 88 | 11812 | 48 | 7756 | 500343 | 10218 | 0 |
| 28 | 88 | 11282 | 48 | 6545 | 500213 | 10376 | 0 |
| 29 | 88 | 11525 | 48 | 8038 | 500691 | 10426 | 0 |
| 30 | 89 | 11646 | 48 | 7849 | 500241 | 10235 | 0 |
| 31 | 89 | 11519 | 48 | 8076 | 500342 | 10199 | 0 |
| 32 | 88 | 11243 | 48 | 8273 | 500049 | 10240 | 0 |

| Stage No. | 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) |
|-----------|----------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| 33 | 88 | 11153 | 48 | 7781 | 499889 | 10237 | 0 |
| 34 | 89 | 11142 | 48 | 7968 | 500344 | 10233 | 0 |
| 35 | 90 | 11833 | 48 | 8026 | 500232 | 10219 | 0 |
| 36 | 90 | 11976 | 48 | 7936 | 500201 | 9059 | 0 |
| 37 | 89 | 11683 | 48 | 8582 | 499950 | 9263 | 0 |
| 38 | 88 | 11371 | 48 | 8348 | 500015 | 9264 | 0 |
| 39 | 88 | 11343 | 48 | 7801 | 500106 | 9229 | 0 |
| 40 | 89 | 11426 | 48 | 8063 | 499916 | 9162 | 0 |
| 41 | 88 | 10939 | 48 | 8268 | 500190 | 9213 | 0 |
| 42 | 88 | 10902 | 48 | 8547 | 499980 | 9246 | 0 |
| 43 | 89 | 11512 | 48 | 7725 | 500579 | 10137 | 0 |
| 44 | 89 | 11696 | 48 | 8125 | 500638 | 9062 | 0 |
| 45 | 89 | 11330 | 48 | 8701 | 499987 | 9103 | 0 |
| 46 | 90 | 11424 | 48 | 8158 | 500234 | 9019 | 0 |
| 47 | 90 | 11873 | 48 | 8354 | 499830 | 9064 | 0 |
| 48 | 90 | 11292 | 48 | 8063 | 501037 | 9030 | 0 |
| 49 | 90 | 11329 | 48 | 7989 | 500322 | 9021 | 0 |
| 50 | 90 | 11245 | 48 | 8197 | 500329 | 8985 | 0 |
| 51 | 90 | 11090 | 48 | 8580 | 500449 | 9021 | 0 |
| 52 | 90 | 10990 | 48 | 8626 | 500191 | 9013 | 0 |
| 53 | 90 | 11175 | 48 | 8129 | 500173 | 8982 | 0 |
| 54 | 90 | 10984 | 48 | 8133 | 500263 | 8927 | 0 |
| 55 | 90 | 10974 | 48 | 7965 | 500908 | 8877 | 0 |
| 56 | 90 | 11019 | 48 | 8650 | 500129 | 8912 | 0 |
| 57 | 90 | 10477 | 48 | 8326 | 498615 | 8976 | 0 |
| 58 | 90 | 10677 | 48 | 8106 | 492978 | 8871 | 0 |
| 59 | 90 | 11014 | 48 | 7932 | 462834 | 8946 | 0 |
| 60 | 90 | 10872 | 48 | 7510 | 500031 | 8880 | 0 |
| 61 | 89 | 11218 | 48 | 8058 | 499785 | 8925 | 0 |
| 62 | 88 | 11560 | 48 | 8042 | 500345 | 9913 | 0 |
| 63 | 89 | 10802 | 48 | 6863 | 502029 | 8856 | 0 |
| 64 | 90 | 11051 | 48 | 7944 | 500121 | 8889 | 0 |
| 65 | 90 | 11082 | 48 | 8223 | 500388 | 8862 | 0 |
| 66 | 89 | 11154 | 48 | 8110 | 499520 | 9177 | 0 |

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| Stage No. | 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) |
|-----------|----------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| 67 | 89 | 10759 | 48 | 7824 | 505466 | 8960 | 0 |
| 68 | 90 | 11196 | 48 | 8304 | 500616 | 9798 | 0 |
| 69 | 90 | 11261 | 48 | 8301 | 499785 | 8813 | 0 |
| 70 | 90 | 11101 | 48 | 7819 | 500522 | 8802 | 0 |
| 71 | 89 | 10946 | 48 | 6700 | 500552 | 8844 | 0 |
| 72 | 90 | 10849 | 48 | 6965 | 500297 | 8832 | 0 |
| 73 | 90 | 10872 | 48 | 7605 | 500036 | 8891 | 0 |
| 74 | 88 | 11502 | 48 | 8336 | 499946 | 9682 | 0 |
| 75 | 89 | 10918 | 48 | 8672 | 500210 | 8761 | 0 |
| 76 | 90 | 11131 | 48 | 7800 | 500590 | 8768 | 0 |
| 77 | 90 | 11003 | 48 | 7840 | 500778 | 8822 | 0 |
| 78 | 89 | 10731 | 48 | 8050 | 500667 | 8844 | 0 |
| 79 | 90 | 11738 | 48 | 7953 | 500294 | 8709 | 0 |
| 80 | 88 | 11312 | 48 | 7509 | 500422 | 8721 | 0 |

05/07/2021

OLD CROW N-17HU

| 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 |
|---------------------|------------------------------|---------------------------|-----------------------|--------------------------|---|
| Maxton | 2024 | 2114 | 2024 | 2114 | Sandstone |
| Big Lime | 2114 | 2184 | 2114 | 2184 | Limestone |
| Big Injun | 2184 | 2468 | 2184 | 2469 | Sandstone |
| Weir | 2468 | 2662 | 2469 | 2663 | Sandstone |
| Berea | 2662 | 3008 | 2663 | 3009 | Sandstone |
| Gordon | 3008 | 3062 | 3009 | 3063 | Sandstone |
| Fifty Foot | 3062 | 3610 | 3063 | 3611 | Sandstone |
| Speechley | 3610 | 5032 | 3611 | 5034 | Sandstone |
| Benson | 5032 | 5387 | 5034 | 5390 | Sandstone |
| Alexander | 5387 | 5981 | 5390 | 5994 | Siltstone |
| Rhinestreet | 5981 | 6399 | 5994 | 6415 | Black shale |
| Middlesex | 6399 | 6463 | 6415 | 6480 | Black shale |
| Geneseo/Burkett | 6463 | 6498 | 6480 | 6515 | Black shale |
| Tully | 6498 | 6538 | 6515 | 6555 | Limestone |
| Hamilton | 6538 | 6590 | 6555 | 6607 | Grey shale |
| Marcellus | 6590 | 6639 | 6607 | 6657 | Black shale |
| Onondaga | 6639 | 6864 | 6657 | 6884 | Limestone |
| Oriskany | 6864 | 6973 | 6884 | 6995 | Sandstone |
| Heiderberg | 6973 | 7328 | 6995 | 7352 | Limestone |
| Salina | 7328 | 8362 | 7352 | 8396 | Salt/Anhydrite/LS |
| Lockport | 8362 | 8727 | 8396 | 8765 | Dolomite |
| Rose Hill | 8727 | 9007 | 8765 | 9048 | Shale |
| Packer Shell | 9007 | 9211 | 9048 | 9254 | Limestone |
| Clinton/Tuscarora | 9211 | 9304 | 9254 | 9348 | Sandstone |
| Juniata/Queenston | 9304 | 10058 | 9348 | 10109 | Red Shale |
| Reedsville | 10058 | 11059 | 10109 | 11151 | Grey Shale |
| Utica | 11059 | 11318 | 11151 | 11535 | Black Shale |
| Point Pleasant | 11318 | - | 11535 | - | Shale/Limestone |

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Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|--------------------------------|-------------------------|
| Job Start Date: | 7/8/2020 |
| Job End Date: | 8/1/2020 |
| State: | West Virginia |
| County: | Marshall |
| API Number: | 47-051-02122-00-00 |
| Operator Name: | Tug Hill Operating, LLC |
| Well Name and Number: | Old Crow N 17HU |
| Latitude: | 39.77842996 |
| Longitude: | -80.76306739 |
| Datum: | NAD27 |
| Federal Well: | NO |
| Indian Well: | NO |
| True Vertical Depth: | 11,212 |
| Total Base Water Volume (gal): | 32,315,388 |
| Total Base Non Water Volume: | 0 |



Hydraulic Fracturing Fluid Composition:

| Trade Name | Supplier | Purpose | Ingredients | Chemical Service Number (CAS #) | Maximum Ingredient Concentration in Additive (% by mass)** | Maximum Ingredient Concentration in HF Fluid (% by mass)** | Comments |
|--------------------------|--------------------|--------------------|---------------------------------------|---------------------------------|--|--|----------|
| Water | Tug Hill Operating | Carrier/Base Fluid | Water | 7732-18-5 | 100.00000 | 86.73050 | None |
| Sand (40/70 Proppant) | ProFrac | Proppant | | | | | |
| Sand (100 Mesh Proppant) | ProFrac | Proppant | Silica Substrate | 14808-60-7 | 100.00000 | 10.15941 | None |
| Hydrochloric Acid (7.5%) | PVS | Acidizing | Silica Substrate | 14808-60-7 | 100.00000 | 2.61753 | None |
| | | | Water | 7732-18-5 | 85.00000 | 0.30794 | None |
| | | | Hydrochloric Acid (Hydrogen Chloride) | 7647-01-0 | 37.00000 | 0.13404 | None |
| SimStream FR 9800 | Chemstream | Friction Reducer | Butene, homopolymer | 9003-29-6 | 25.00000 | 0.02064 | None |
| | | | Alkanes, C16-20-iso- | 90622-59-6 | 25.00000 | 0.02064 | None |
| | | | Ethoxylated alcohols (C12-18) | 58213-23-0 | 3.00000 | 0.00248 | None |
| MC MX 9-4743 | Multi-Chem | Biocide | | | | | |
| | | | Sodium Nitrate | 7631-99-4 | 60.00000 | 0.02214 | None |
| LD-7750W | Multi-Chem | Scale Inhibitor | | | | | |

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| | | | | | | | |
|--|--------------|---------------------------|---|-------------|-----------|---------|------|
| | | | Methanol | 67-56-1 | 60.00000 | 0.00500 | None |
| | | | Phosphonic Acid Salt | Proprietary | 5.00000 | 0.00042 | None |
| ProFE 105 | ProFrac | Iron Control | | | | | |
| | | | Citric Acid | 77-92-9 | 100.00000 | 0.00136 | None |
| ProHib 100 | ProFrac | Acid Inhibitor | | | | | |
| | | | 2-Propyn-1-ol compound w/ methylxirane | 38172-91-7 | 15.00000 | 0.00017 | None |
| Ingredients shown above are subject to 29 CFR 1910.1200(i) 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 | 85.00000 | 0.30794 | |
| | | | Butene, homopolymer | 9003-29-6 | 25.00000 | 0.02064 | |
| | | | Ethoxylated alcohols (C12-18) | 68213-23-0 | 3.00000 | 0.00248 | |
| | | | Phosphonic Acid Salt | Proprietary | 5.00000 | 0.00042 | |

* 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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OCT 13 2020

WV Department of
Environmental Protection

05/07/2021

**OLD CROW N LEASE
UTICA UNIT - 494.33 AC±
WELL 17HU
TUG HILL OPERATING**

T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°50'00"

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
NAD'83 S.P.C.(FT) N. 468,139.24 E. 1,613,525.64
NAD'83 GEO. LAT-(N) 39.778430 LONG-(W) 80.763067
NAD'83 UTM (M) N. 4,403,192.43 E. 520,289.72

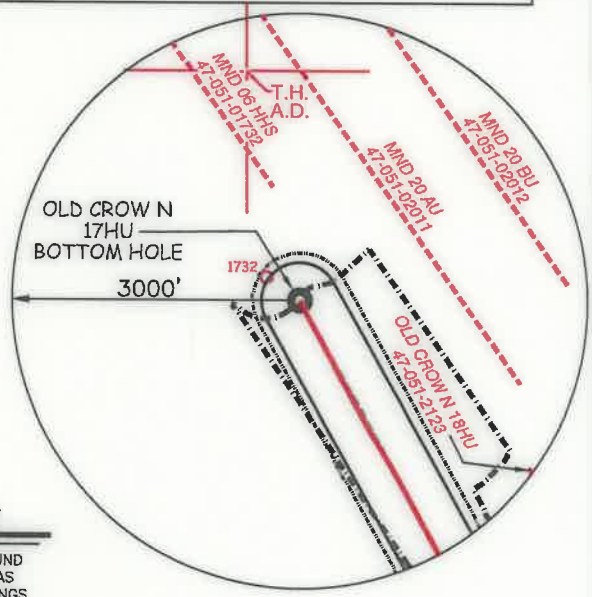
LANDING POINT
NAD'83 S.P.C.(FT) N. 468,471.2 E. 1,613,749.9
NAD'83 GEO. LAT-(N) 39.779350 LONG-(W) 80.762286
NAD'83 UTM (M) N. 4,403,294.7 E. 520,356.4

BOTTOM HOLE
NAD'83 S.P.C.(FT) N. 482,294.4 E. 1,606,073.6
NAD'83 GEO. LAT-(N) 39.816996 LONG-(W) 80.790303
NAD'83 UTM (M) N. 4,407,466.9 E. 517,947.4

T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°45'00"

| TAG | SURFACE OWNER | PARCEL | ACRES |
|-----|---|-----------|--------------|
| A | JOHN SWIERKOS | 5-16-25 | 79.04 |
| B | DONNA VIVIAN YOHO - TOD | 5-16-3 | 71.205 |
| C | JOHN SWIERKOS | 5-16-5 | 52.07 |
| D | JOHN SWIERKOS | 5-10-14 | 100.00 |
| E | JIMMY OSTRANDER, SR., ET UX | 5-16-3.2 | 1.435 |
| F | PAUL ANDREW & DEBRA A. RINE | 5-10-15 | 120.80 |
| G | DONALD T. MILLER | 5-10-15.1 | 2.095 |
| H | TIMOTHY SR. & LINDA MCGINNIS | 5-10-16 | 30.87 |
| I | MELVIN E. JR., & ELIZABETH FERGUSON | 5-10-16.4 | 30.87 |
| J | WILLIAM A. PRASCIK, ET AL | 5-10-2 | 52.00 |
| K | ALVIN A. YODER | 5-10-17 | 57.28 |
| L | WESLEY R. BRYAN & WESLEY R. BRYAN, II | 5-11-11.2 | 25.03 |
| M | ALVIN A. YODER | 5-11-10 | 31.91 |
| N | JACK S. HUGGINS, ET UX | 5-11-9.4 | 4.129 |
| O | JACK SHEPHARD HUGGINS, JR., ET AL | 5-11-9.1 | 10.92 |
| P | EDWIN C. MILLER | 5-10-1 | 49.96 |
| Q | SEAN F. MOORE | 5-11-9.7 | 2.03 |
| R | EDWIN C. & KIMBERLY A. MILLER | 5-11-9 | 54.625 |
| S | SEAN F. MOORE | 5-11-9.8 | 2.070 |
| T | JAMES M. & ROBERT L. STERN | 5-9-29 | 3.1777 |
| U | TRUSTEES OF LIGHTHOUSE TABERNACLE CHURCH | 5-9-30.2 | 1.954 |
| V | JOHN D. & MARSHA J. ROBERTS | 5-9-38.6 | 0.719 |
| W | JOHN D. & MARSHA J. ROBERTS | 5-9-38.7 | 0.795 |
| X | JOHN D. & MARSHA J. ROBERTS | 5-9-38.5 | 0.619 |
| Y | JOHN D. & MARSHA J. ROBERTS | 5-9-38.4 | 0.669 |
| Z | FISH CREEK-WV DIVISION OF NATURAL RESOURCES | N/A | N/A |
| AA | DAVID ARRICK, ET UX | 5-11-4 | 31.5 |
| BB | SHELVA G. SMITH, ET UX | 5-9-38.3 | 0.706 |
| CC | SHELVA G. SMITH, ET UX | 5-9-38.2 | 0.735 |
| DD | JOHN H. LONG, ET UX | 5-9-38.1 | 0.815 |
| EE | ROBERT S. COWGILL | 5-9-38.10 | 0.920 |
| FF | DALISON LUMBER COMPANY | 5-9-31 | 32.10 |
| GG | JOHN D. ROBERTS, ET UX | 5-9-38.8 | 0.903 |
| HH | JOHN D. ROBERTS, ET UX | 5-9-38.9 | 1.017 |
| II | SHIRLEY A. HILL ESTATE | 5-9-38 | 3.331 |
| JJ | FRANK T. & ANNA M. WALKER | 5-9-37 | 10.857 |
| KK | RUBY M. HENRY ESTATE (C/O GEORGE E. HENRY) | 5-9-32.4 | 0.379 |
| LL | JOHN DRAKE ALBAUGH | 5-9-32.12 | 1.09 |
| MM | JOHN DRAKE ALBAUGH | 5-9-32.1 | 1.002 |
| NN | JOHN DRAKE ALBAUGH | 5-9-32.2 | 0.231 |
| OO | RUBY M. HENRY ESTATE (C/O GEORGE E. HENRY) | 5-9-32.6 | 0.474 |
| PP | JOHN D. ALBAUGH | 5-9-32.13 | 0.848 |
| QQ | JOHN D. ALBAUGH | 5-9-32.7 | 0.729 |
| RR | SANDRA J. BONETTE | 5-9-32 | 2.321 |
| SS | JAMES EDWARD FRANCIS, ET UX | 5-8-8 | 28.3 |
| TT | JAMES B. JACKSON, JR., ET UX | 5-8-9 | 89.723 |
| UU | EDWIN C. MILLER | 5-8-7 | 180.31 |
| VV | RICHARD L. GAITS (LIFE) | 5-8-5 | 97.819 |
| WW | WAYNE C. BERISFORD | 5-8-4 | 23.355 |
| XX | JARED C. SELLS | 5-8A-35 | 2.78 |
| YY | JOHN F. ARRUDA, ET UX | 5-5-4.1 | 1.399 |
| ZZ | TAMMY L. MITCHELL | 5-8-3 | 35.07 |
| A1 | ROBERT L. & DONALD SHIELDS | 5-8-23 | 48 POLES |
| A2 | BOARD OF EDUCATION | 5-8A-14 | 137 SQ. RODS |
| A3 | LETHA I. RUCKMAN | 5-8A-13 | 2.993 |
| A4 | MARY D. RUCKMAN | 5-8A-12 | 1.137 |

B.H. A.D.



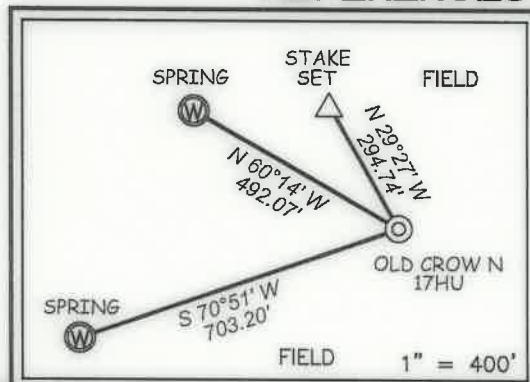
NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS > 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE ARE 1"=2000'
- PROPOSED LATERAL OR TOP HOLE OF OLD CROW N-17HU (47-051-02122) IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF EXISTING WELLS BRYAN N 13HU (47-051-02030), BRYAN N 14HU (47-051-02031), OLD CROW N-18HU (47-051-02123), & PROPOSED OLD CROW N-19HU (47-051-02190), MND 06 HHS (47-051-01732), MND 20AU (47-051-02011), MND 20BU (47-051-02012).
- AS-DRILLED DATA PROVIDED BY TUG HILL OPERATING, LLC.
- PLAT UPDATED TO SHOW AS-DRILLED PATH.

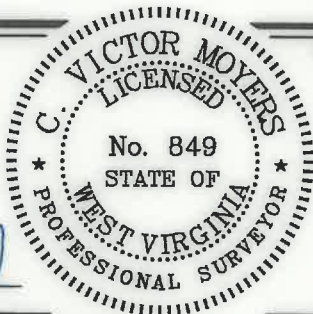
LEGEND

AS DRILLED ———
PROPOSED - - - - -

REFERENCES



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slswv.com



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 *C. Victor Moyers*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JUNE 10, 20 20

REVISED _____
OPERATORS WELL NO. OLD CROW N-17HU
API WELL NO. 47 - 051 - 02122
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P17HUAD.dwg
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'
OLD CROW NORTH 17HU_REV7

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

WELL TYPE: OIL _____ GAS X INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP X SHALLOW _____
LOCATION: GROUND = 1286.73' ELEVATION PROPOSED = 1264.99' WATERSHED _____ TRIBUTARY OF FISH CREEK (HUC-10)
DISTRICT FRANKLIN COUNTY MARSHALL QUADRANGLE POWHATAN POINT 7.5'
SURFACE OWNER DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO ACREAGE 71.205±
ROYALTY OWNER DONNA VIVIAN YOHO, ET AL - SEE ADDITIONAL SHEETS ACREAGE 71.205±
PROPOSED WORK: DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____ OTHER _____
PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,592' / TMD: 27,771'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5400 D BIG TYLER ROAD
FORT WORTH, TX 76107 CHARLESTON, WV 25313

05/07/2021

COUNTY NAME PERMIT

**OLD CROW N LEASE
UTICA UNIT - 494.33 AC ±
WELL 17HU
TUG HILL OPERATING**

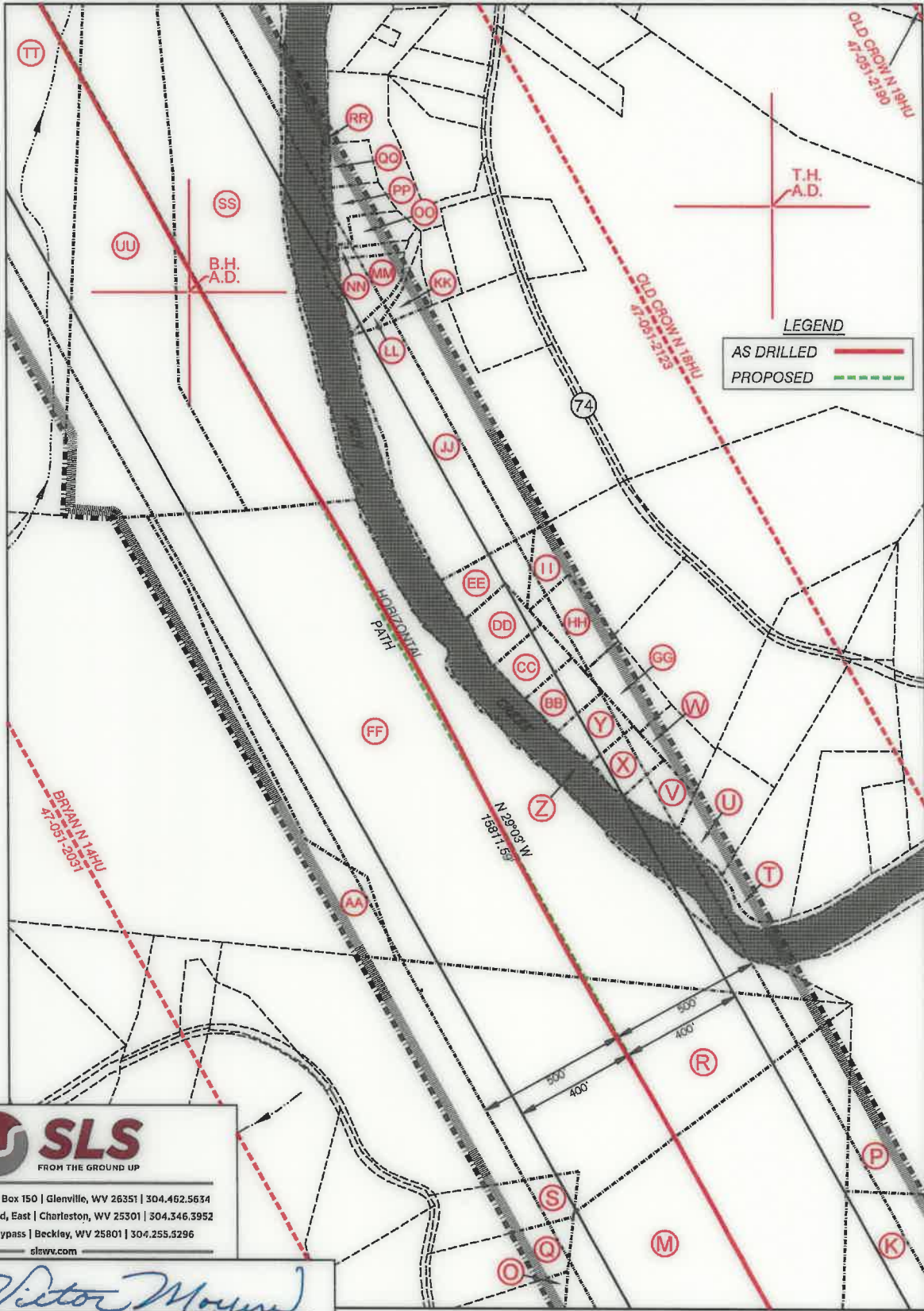
T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°50'00"

**SHEET 2 DETAIL
SCALE - 1" = 500'**

T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°45'00"

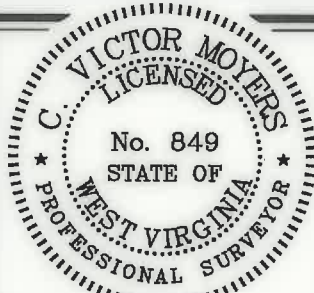
4,822' T.H. A.D.
5,954' B.H. A.D.

NAD '83 GRID NORTH



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slswv.com

P.S. 849 *C. Victor Moyers*



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

LEGEND

- UNIT BOUNDARY
- LEASED TRACTS INSIDE
- UNIT BOUNDARY
- SURFACE LINE
- PROPOSED UTICA
- WELL LATERAL
- 400' OFFSET LINE
- 500' OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE ADDITIONAL SHEETS)

COUNTY NAME

PERMIT

| | | | |
|---|-------------------|--------------------|--|
| (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH) | | | |
| NAD'83 S.P.C.(FT) | N. 468,139.24 | E. 1,613,525.64 | |
| NAD'83 GEO. | LAT-(N) 39.778430 | LONG-(W) 80.763067 | |
| NAD'83 UTM (M) | N. 4,403,192.43 | E. 520,289.72 | |
| LANDING POINT | | | |
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SCALE 1" = 2000' FILE NO. 8796P17HUAD.dwg
 DATE JUNE 10, 20 20
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 NO. STATE COUNTY PERMIT

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



05/07/2021

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

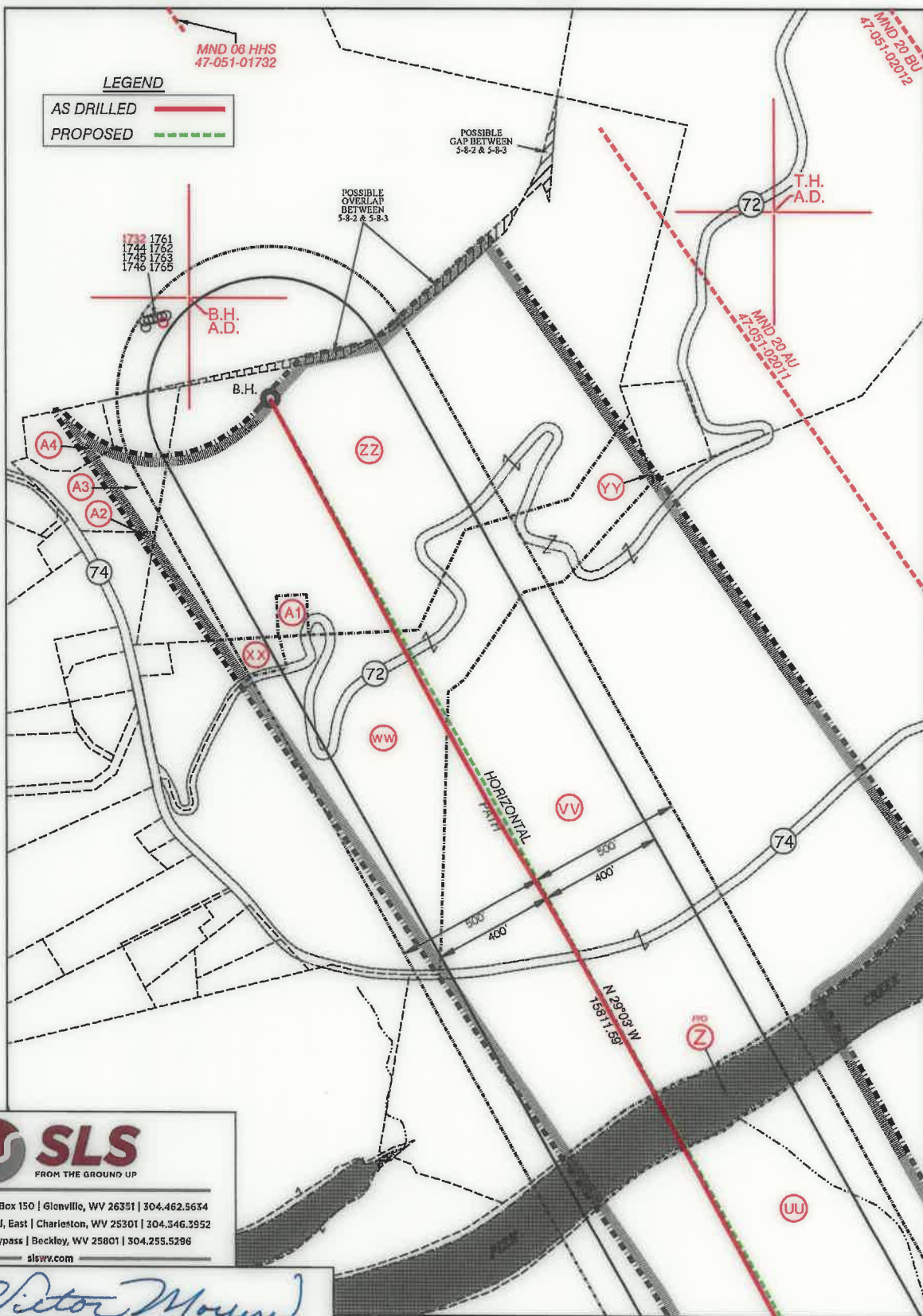
DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

**OLD CROW N LEASE
UTICA UNIT - 494.33 AC±
WELL 17HU
TUG HILL OPERATING**

T.H. LATITUDE 39°47'30"
B.H. LATITUDE 39°50'00"

T.H. LONGITUDE 80°45'00"
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**SHEET 2 DETAIL
SCALE - 1" = 500'**

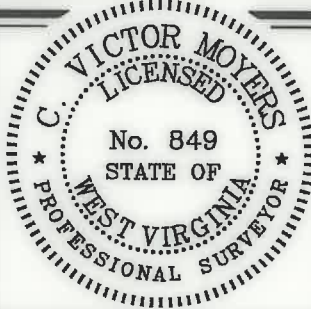


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slsrv.com

P.S. 849

C. Victor Moyers

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LEGEND

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- LEASED TRACTS INSIDE
- UNIT BOUNDARY
- SURFACE LINE
- PROPOSED UTICA
- WELL LATERAL
- 400' OFFSET LINE
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- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE ADDITIONAL SHEETS)

SCALE 1" = 2000' FILE NO. 8796P17HUAD.dwg
OLD CROW NORTH 17HU REV7
DATE JUNE 10, 2020
REVISED _____
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API WELL NO. 47 — 051 — 02122
NO. STATE COUNTY PERMIT

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



05/07/2021

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
ADDRESS CT CORPORATION SYSTEM
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CHARLESTON, WV 25313

COUNTY NAME PERMIT

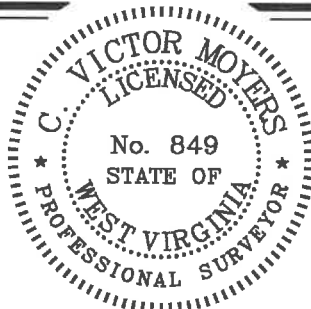
**OLD CROW N LEASE
UTICA UNIT - 494.33 AC ±
WELL 17HU
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slswv.com

| NO. | Lease ID | Tag | Parcel | Grantor, Lessor, Etc. | Deed Book/Page | |
|-----|----------------|-----|------------|--|----------------|-----|
| 1 | 10*21468 | A | 5-16-25 | JOHN A SWIERKOS | 953 | 317 |
| 2 | 10*19340 | B | 5-16-3 | DONNA V YOHO | 665 | 407 |
| 3 | 10*14919 | C | 5-16-5 | CHESTNUT HOLDINGS INC | 836 | 117 |
| 4 | 10*14920 | D | 5-10-14 | CHESTNUT HOLDINGS INC | 836 | 119 |
| 5 | 10*19340 | E | 5-16-3.2 | DONNA V YOHO | 665 | 407 |
| 6 | 10*19017 | F | 5-10-15 | PAUL A RINE AND DEBRA A RINE | 796 | 24 |
| 7 | 10*19223 | G | 5-10-15.1 | DONALD T MILLER | 737 | 284 |
| 8 | 10*19126 | H | 5-10-16 | KEVIN R. CORLEY AND ANITA L. CORLEY, HUSBAND AND WIFE | 859 | 44 |
| 9 | 10*19109 | I | 5-10-16.4 | JOHN W. MILLER AND MARY ALICE MILLER, HUSBAND AND WIFE | 863 | 275 |
| 10 | 10*47051.260.0 | J | 5-10-2 | WILLIAM A PRASCIK, ET AL | 879 | 302 |
| 11 | 10*19021 | K | 5-10-17 | MARCELLUS TX MINERAL PARTNERS LTD, et al | 800 | 216 |
| 12 | 10*19936 | L | 5-11-11.2 | BONNIE JEAN DAWSON | 665 | 397 |
| 13 | 10*19021 | M | 5-11-10 | MARCELLUS TX MINERAL PARTNERS LTD, et al | 800 | 216 |
| 14 | 10*19153 | N | 5-11-9.4 | JACK S HUGGINS JR AND TERRY L HUGGINS | 700 | 396 |
| 15 | 10*19153 | O | 5-11-9.1 | JACK S HUGGINS JR | 700 | 396 |
| 16 | 10*18970 | P | 5-10-1 | DONALD E BERISFORD, et al | 941 | 287 |
| 17 | 10*14099 | Q | 5-11-9.7 | SOUTHERN COUNTRY FARMS INC | 666 | 489 |
| 18 | 10*14099 | R | 5-11-9 | SOUTHERN COUNTRY FARMS INC | 666 | 489 |
| 19 | 10*19172 | S | 5-11-9.8 | SEAN F MOORE LINDA MOORE | 706 | 581 |
| 20 | 10*17512 | T | 5-9-29 | BONNIE LOU POSTLEWAIT, et al | 917 | 68 |
| 21 | 10*21547 | U | 5-9-30.2 | GARY A MILLER AND MARCELLE T MILLER, et al | 952 | 370 |
| 22 | CVX935271 | V | 5-9-38.6 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
| 23 | CVX935271 | W | 5-9-38.7 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
| 24 | CVX935271 | X | 5-9-38.5 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
| 25 | CVX935271 | Y | 5-9-38.4 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
| 26 | Q091960000 | Z | FISH CREEK | WEST VIRGINIA DIVISION OF NATURAL RESOURCES | 865 | 558 |
| 27 | 10*19098 | AA | 5-11-4 | DAVID HARRICK AND LELAH MARRICK, et al | 800 | 505 |
| 28 | CVX935271 | BB | 5-9-38.3 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
| 29 | CVX935271 | CC | 5-9-38.2 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
| 30 | CVX935271 | DD | 5-9-38.1 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
| 31 | CVX935271 | EE | 5-9-38.10 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
| 32 | 10*19217 | FF | 5-9-31 | JAY DEE DALLISON EDDIE D DALLISON | 676 | 463 |
| 33 | CVX935271 | GG | 5-9-38.8 | CHARLES W. MILLER AND ESTHER JEAN MILLER, et al | 853 | 59 |
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OLD CROW NORTH 17HU_REV7
DATE JUNE 10, 20 20
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OPERATORS WELL NO. OLD CROW N-17HU
API WELL NO. 47 — 051 — 02122
STATE COUNTY PERMIT



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



P.S. 849 C. Victor Moyers

WELL OPERATOR TUG HILL OPERATING, LLC
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FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
CT CORPORATION SYSTEM
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME
PERMIT