

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

RECEIVED
Office of Oil and Gas
JUN 10 2020
WV Department of
Environmental Protection

API 47 - 051 - 01971 County Marshall District Franklin
Quad Powhatan Point Pad Name Corley Field/Pool Name _____
Farm name Corley, James A. and Jill C. Well Number Corley N-6HM
Operator (as registered with the OOG) Tug Hill Operating, LLC
Address 1320 S. University Drive, Suite 215 City Ft. Worth State TX Zip 76107

As Drilled location NAD83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,400,366.88 Easting 520,285.72
Landing Point of Curve Northing 4,400,713.37 Easting 519,842.59
Bottom Hole Northing 4,402,577.22 Easting 518,762.11

Elevation (ft) 1254.22' 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 Additives: 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 1/2/2018 Date drilling commenced 6/24/2018 Date drilling ceased 7/11/2018
Date completion activities began 12/21/2018 Date completion activities ceased 2/23/2019
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 70' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,595' Void(s) encountered (Y/N) depths N
Coal depth(s) ft Sewickly - 974', Pittsburgh - 1064' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
Jim McHolman
6/22/2020

API 47-051 - 01971 Farm name Corley, James A. and Jill C. Well number Corley N-6HM

| 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' | 120' | NEW | 94.5# | N/A | Y |
| Surface | 17 1/2" | 13 3/8" | 1,010' | NEW | 54.5# | N/A | Y |
| Coal | 17 1/2" | 13 3/8" | 1,010' | NEW | 54.5# | N/A | Y |
| Intermediate 1 | 12 1/4" | 9 5/8" | 2,621' | NEW | 36# | N/A | Y |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | 8 3/4" | 5 1/2" | 14,282' | NEW | 20# | N/A | Y |
| Tubing | | 2 3/8" | 7,141' | NEW | 4.7# | N/A | |
| Packer type and depth set | | | | | | | |

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Comment Details _____

WV Department of Environmental Protection

| 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 | 1.19 | | 0 | 8 |
| Surface | A | 1095 | 15.6 | 1.19 | 1323 | 0 | 8 |
| Coal | A | 1095 | 15.6 | 1.19 | 1323 | 0 | 8 |
| Intermediate 1 | A | 924 | 15.6 | 1.19 | 1100 | 0 | 8 |
| Intermediate 2 | | | | | | | |
| Intermediate 3 | | | | | | | |
| Production | A | 3594 | 14.5 | 1.17 | 4220 | 0 | 8 |
| Tubing | | | | | | | |

Drillers TD (ft) 14,316' Loggers TD (ft) _____

Deepest formation penetrated n/a Plug back to (ft) n/a

Plug back procedure n/a

Kick off depth (ft) 6,093'

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 _____

**Corley N-6HM
PEFORATION RECORD**

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| Stage No. | Perforation Date | Perforated from MD ft. | Perforated to MD. Ft. | Number of Perforations | Formation(s) |
|-----------|------------------|------------------------|-----------------------|------------------------|--------------|
| 1 | 1/23/2019 | 14,135 | 14,184 | 16 | Marcellus |
| 2 | 1/24/2019 | 13,920 | 14,072 | 48 | Marcellus |
| 3 | 1/24/2019 | 13,746 | 13,898 | 48 | Marcellus |
| 4 | 1/25/2019 | 13,572 | 13,724 | 48 | Marcellus |
| 5 | 1/25/2019 | 13,398 | 13,550 | 48 | Marcellus |
| 6 | 1/26/2019 | 13,224 | 13,376 | 48 | Marcellus |
| 7 | 1/26/2019 | 13,050 | 13,202 | 48 | Marcellus |
| 8 | 1/27/2019 | 12,876 | 13,028 | 48 | Marcellus |
| 9 | 1/27/2019 | 12,702 | 12,854 | 48 | Marcellus |
| 10 | 1/28/2019 | 12,528 | 12,680 | 48 | Marcellus |
| 11 | 1/28/2019 | 12,354 | 12,506 | 48 | Marcellus |
| 12 | 1/28/2019 | 12,180 | 12,332 | 48 | Marcellus |
| 13 | 1/29/2019 | 12,006 | 12,158 | 48 | Marcellus |
| 14 | 1/29/2019 | 11,832 | 11,984 | 48 | Marcellus |
| 15 | 1/30/2019 | 11,658 | 11,810 | 48 | Marcellus |
| 16 | 1/31/2019 | 11,484 | 11,636 | 48 | Marcellus |
| 17 | 2/1/2019 | 11,310 | 11,462 | 48 | Marcellus |
| 18 | 2/2/2019 | 11,136 | 11,288 | 48 | Marcellus |
| 19 | 2/3/2019 | 10,962 | 11,114 | 48 | Marcellus |
| 20 | 2/3/2019 | 10,788 | 10,940 | 48 | Marcellus |
| 21 | 2/4/2019 | 10,614 | 10,766 | 48 | Marcellus |
| 22 | 2/4/2019 | 10,440 | 10,592 | 48 | Marcellus |
| 23 | 2/5/2019 | 10,266 | 10,418 | 48 | Marcellus |
| 24 | 2/6/2019 | 10,092 | 10,244 | 48 | Marcellus |
| 25 | 2/6/2019 | 9,918 | 10,070 | 48 | Marcellus |
| 26 | 2/7/2019 | 9,744 | 9,896 | 48 | Marcellus |
| 27 | 2/7/2019 | 9,570 | 9,722 | 48 | Marcellus |
| 28 | 2/8/2019 | 9,396 | 9,548 | 48 | Marcellus |
| 29 | 2/9/2019 | 9,222 | 9,374 | 48 | Marcellus |
| 30 | 2/9/2019 | 9,048 | 9,200 | 48 | Marcellus |
| 31 | 2/10/2019 | 8,874 | 9,026 | 48 | Marcellus |
| 32 | 2/11/2019 | 8,700 | 8,852 | 48 | Marcellus |
| 33 | 2/12/2019 | 8,526 | 8,678 | 48 | Marcellus |
| 34 | 2/13/2019 | 8,352 | 8,504 | 48 | Marcellus |
| 35 | 2/13/2019 | 8,178 | 8,330 | 48 | Marcellus |
| 36 | 2/14/2019 | 8,004 | 8,156 | 48 | Marcellus |
| 37 | 2/15/2019 | 7,830 | 7,982 | 48 | Marcellus |
| 38 | 2/16/2019 | 7,656 | 7,808 | 48 | Marcellus |
| 39 | 2/17/2019 | 7,482 | 7,634 | 48 | Marcellus |
| 40 | 2/18/2019 | 7,308 | 7,460 | 48 | Marcellus |
| 41 | 2/18/2019 | 7,134 | 7,286 | 48 | Marcellus |

Corley N-6HM

STIMULATION INFORMATION PER STAGE

| Stage No. | Ave. Pump Rate (BPM) | Ave Treatment Pressure (PSI) | Max Breakdown Pressure (PSI) | ISIP (PSI) | Amount of Proppant (lbs) | Amount of Water (bbbls) | Amount of Nitrogen/other (units) |
|-----------|----------------------|------------------------------|------------------------------|------------|--------------------------|-------------------------|----------------------------------|
| 1 | 85.4 | 6055 | 5338 | 3224 | 352790 | 7902 | 0 |
| 2 | 84.8 | 6682 | 5067 | 4394 | 438360 | 8091 | 0 |
| 3 | 88.9 | 6949 | 5426 | 4977 | 438340 | 7911 | 0 |
| 4 | 85.1 | 6819 | 5369 | 5023 | 438180 | 7600 | 0 |
| 5 | 85.1 | 6723 | 5237 | 4880 | 436900 | 7843 | 0 |
| 6 | 82.3 | 6663 | 5409 | 4935 | 441480 | 7866 | 0 |
| 7 | 85.1 | 6839 | 5272 | 4881 | 432080 | 7811 | 0 |
| 8 | 84.9 | 6660 | 5296 | 4351 | 435670 | 7836 | 0 |
| 9 | 87.5 | 7012 | 5624 | 5284 | 436210 | 7867 | 0 |
| 10 | 85.1 | 6563 | 5090 | 4140 | 439210 | 7873 | 0 |
| 11 | 88.5 | 7044 | 5070 | 4732 | 419365 | 7724 | 0 |
| 12 | 85.1 | 6657 | 5230 | 4817 | 437070 | 8632 | 0 |
| 13 | 85.8 | 6550 | 5344 | 4862 | 445970 | 7624 | 0 |
| 14 | 85.7 | 6584 | 5319 | 4957 | 450450 | 7939 | 0 |
| 15 | 85.5 | 6624 | 4923 | 5091 | 443020 | 8038 | 0 |
| 16 | 84.3 | 6725 | 5656 | 4998 | 438750 | 9455 | 0 |
| 17 | 87.4 | 6796 | 5426 | 4977 | 441720 | 7978 | 0 |
| 18 | 85.9 | 6746 | 5801 | 4947 | 443870 | 7386 | 0 |
| 19 | 85.5 | 6439 | 5007 | 5032 | 443690 | 7415 | 0 |
| 20 | 86.3 | 6252 | 5138 | 4977 | 438210 | 7371 | 0 |
| 21 | 85.6 | 6400 | 5382 | 4806 | 435480 | 7384 | 0 |
| 22 | 85 | 6481 | 5561 | 5217 | 439180 | 7282 | 0 |
| 23 | 86 | 6376 | 5331 | 5061 | 439450 | 8845 | 0 |
| 24 | 85.5 | 6382 | 5391 | 4888 | 441100 | 7224 | 0 |
| 25 | 85.7 | 6434 | 4993 | 4757 | 447070 | 8439 | 0 |
| 26 | 85.1 | 6311 | 5557 | 5263 | 432250 | 7164 | 0 |
| 27 | 84.6 | 6552 | 5024 | 4712 | 440740 | 7174 | 0 |
| 28 | 85.2 | 6197 | 4834 | 4970 | 437340 | 7609 | 0 |
| 29 | 85.4 | 6383 | 5408 | 5106 | 436680 | 7511 | 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) |
|-----------|----------------------|------------------------------|------------------------------|------------|--------------------------|------------------------|----------------------------------|
| 30 | 85.2 | 6182 | 5622 | 5017 | 444240 | 7584 | 0 |
| 31 | 85.4 | 6316 | 5613 | 4792 | 436300 | 7465 | 0 |
| 32 | 85.7 | 6309 | 5812 | 4866 | 438444 | 7449 | 0 |
| 33 | 85.4 | 6252 | 5422 | 5132 | 439420 | 7388 | 0 |
| 34 | 85.3 | 6200 | 5406 | 4546 | 434260 | 7268 | 0 |
| 35 | 85.1 | 6353 | 5082 | 4387 | 439660 | 7516 | 0 |
| 36 | 84.8 | 6272 | 4891 | 4684 | 437060 | 7392 | 0 |
| 37 | 85.5 | 6293 | 5095 | 4798 | 440110 | 7323 | 0 |
| 38 | 85 | 6356 | 4869 | 4784 | 439560 | 7516 | 0 |
| 39 | 85 | 6429 | 4981 | 4752 | 440660 | 7387 | 0 |
| 40 | 85.4 | 6123 | 5161 | 4804 | 441100 | 7388 | 0 |
| 41 | 85.1 | 6093 | 5304 | 5020 | 437420 | 7438 | 0 |

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CORLEY N-6HM

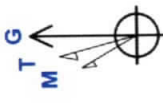
| LITHOLOGY/FORMATION | TOP DEPTH IN FT/ Name TVD | BOTTOM DEPTH IN FT TVD | TOP DEPTH IN FT MD | BOTTOM DEPTH IN FT MD | DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID |
|---------------------|------------------------------|---------------------------|-----------------------|--------------------------|---|
| Maxton | 1951 | 2045 | 1952 | 2047 | Sandstone |
| Big Lime | 2045 | 2087 | 2047 | 2089 | Limestone |
| Big Injun | 2087 | 2404 | 2089 | 2412 | Sandstone |
| Weir | 2404 | 2583 | 2412 | 2595 | Sandstone |
| Berea | 2583 | 2863 | 2595 | 2884 | Sandstone |
| Gordon | 2863 | 2927 | 2884 | 2950 | Sandstone |
| Fifty Foot | 2927 | 3527 | 2950 | 3575 | Sandstone |
| Speechley | 3527 | 4941 | 3575 | 5046 | Sandstone |
| Benson | 4941 | 5317 | 5046 | 5437 | Sandstone |
| Alexander | 5317 | 5949 | 5437 | 6092 | Siltstone |
| Rhinestreet | 5949 | 6378 | 6092 | 6605 | Black shale |
| Middlesex | 6378 | 6448 | 6605 | 6717 | Black shale |
| Geneseo/Burkett | 6448 | 6478 | 6717 | 6771 | Black shale |
| Tully | 6478 | 6515 | 6771 | 6845 | Limestone |
| Hamilton | 6515 | 6574 | 6845 | 7022 | Grey shale |
| Marcellus | 6574 | - | 7022 | - | Black shale |

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Well: Corley N-06HM (slot G)
Site: Corley Pad
Project: Marshall County, WV
Design: rev1
Rig: Precision 110

Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD83 West Virginia - HARN
 Ellipsoid: GRS 1980
 Zone: Zone 17N (84 W to 78 W)
 System Datum: Mean Sea Level
 Depth Reference: RIG-1234-28 @ 1282.00uft (Precision 110)
 Survey Name: Corley N-06HM
 Northing: 14436870.04 1706970.31 39 75207084.80 76320287



Azimuths to Grid North
 True North: -0.15°
 Magnetic North: -8.82°
 Magnetic Field
 Strength: 52044.4nT
 Dip Angle: 66.85°
 Date: 6/25/2018
 Model: IGRF2015

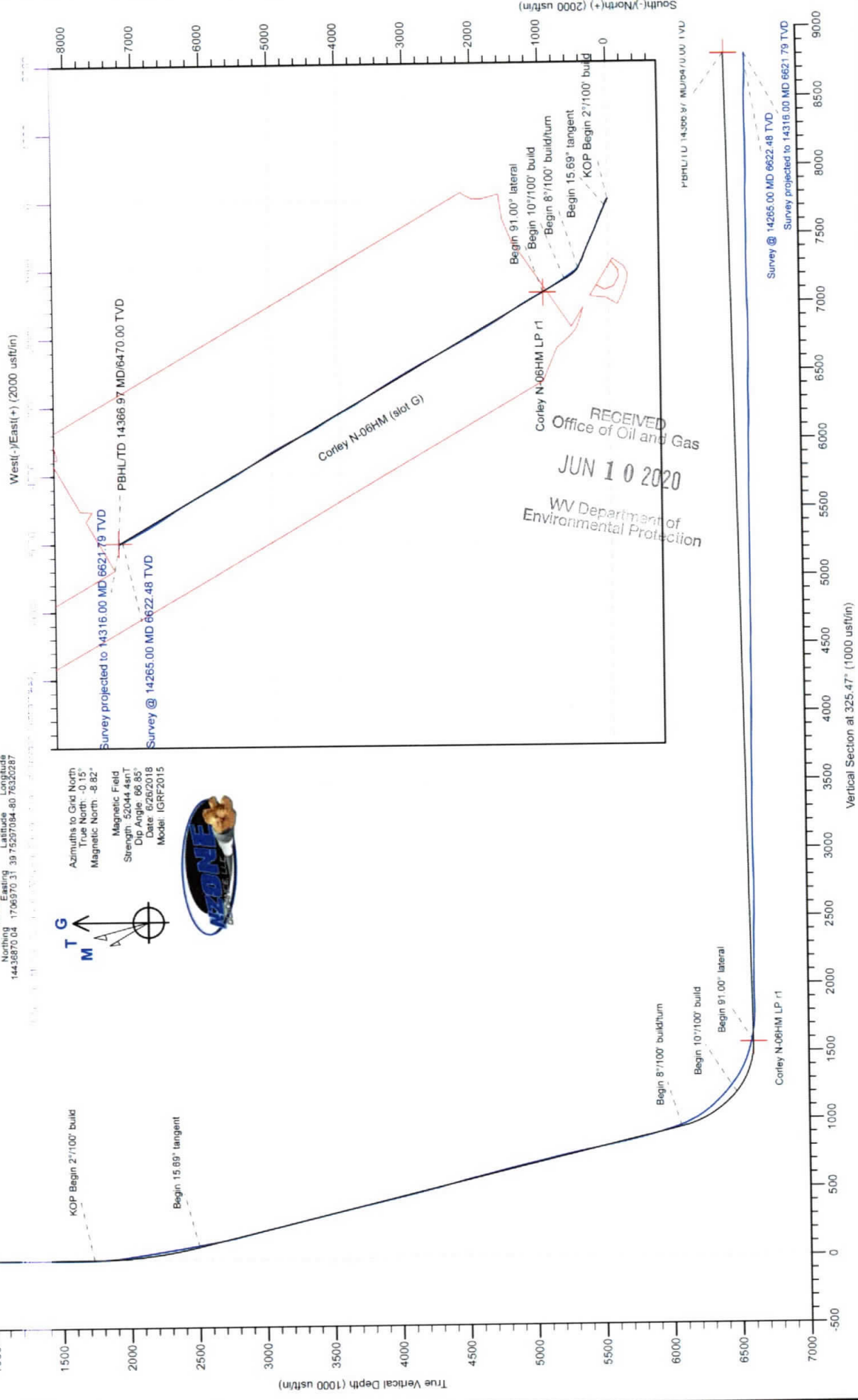


SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N-S | +E/W | Dleg | TFace | Vsect | Annotation |
|-----|----------|-------|--------|---------|---------|----------|-------|--------|---------|---------------------------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 1728.00 | 0.00 | 0.00 | 1728.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | KOP Begin 2'100' build |
| 3 | 2512.58 | 15.69 | 293.69 | 2502.81 | 42.90 | -97.77 | 2.00 | 293.69 | 90.77 | Begin 15.69° tangent |
| 4 | 6211.31 | 15.69 | 293.69 | 6063.69 | 444.85 | -1013.82 | 0.00 | 0.00 | 0.00 | Begin 8'100' build |
| 5 | 6700.99 | 51.00 | 330.00 | 6469.41 | 644.07 | -1175.96 | 8.00 | 46.78 | 1197.23 | Begin 10'100' build |
| 6 | 7100.99 | 91.00 | 330.00 | 6597.00 | 965.00 | -1361.25 | 10.00 | 0.00 | 1566.65 | Begin 91.00° lateral |
| 7 | 14366.97 | 91.00 | 330.00 | 6470.00 | 7256.57 | -4993.69 | 0.00 | 0.00 | 8808.79 | PBHL/TD 14366.97 MD/6470.00 TVD |

ANNOTATIONS SURVEYS

| MD | Inc | Azi | TVD | +N-S | +E/W | Vsect | Annotation |
|----------|-------|--------|---------|---------|----------|---------|---|
| 300.00 | 0.08 | 247.21 | 300.00 | -0.08 | -0.19 | 0.04 | MWD surveys |
| 14265.00 | 90.77 | 332.48 | 6622.48 | 7206.56 | -4975.15 | 8757.08 | Survey @ 14265.00 MD 6622.48 TVD |
| 14316.00 | 90.77 | 332.48 | 6621.79 | 7251.79 | -4998.71 | 8807.70 | Survey projected to 14316.00 MD 6621.79 TVD |



Hydraulic Fracturing Fluid Product Component Information Disclosure

| | |
|--------------------------------|-------------------------|
| Job Start Date: | 1/23/2019 |
| Job End Date: | 2/18/2019 |
| State: | West Virginia |
| County: | Marshall |
| API Number: | 47-051-0197 1-00-00 |
| Operator Name: | Tug Hill Operating, LLC |
| Well Name and Number: | Corley N 6HM |
| Latitude: | 39.75297084 |
| Longitude: | -80.76320287 |
| Datum: | NAD27 |
| Federal Well: | NO |
| Indian Well: | NO |
| True Vertical Depth: | 6,623 |
| Total Base Water Volume (gal): | 13,570,051 |
| Total Base Non Water Volume: | 0 |



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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 |
|----------------|----------|------------|-------------|--|--|--|-----------------|
| Fresh Water | Operator | Base Fluid | | | | | |
| | | | Water | 7732-18-5 | 100.00000 | 68.23031 | Density = 8.330 |
| Produced Water | Operator | Base Fluid | | | | | |
| | | | Water | 7732-18-5 | 100.00000 | 17.62549 | Density = 9.000 |

| Ingredients | Listed Above | Listed Above | | | | | | |
|---|--------------|----------------------|-------|--------------|-----------|---------|--|--|
| | | | Water | 7732-18-5 | 100.00000 | 0.60258 | | |
| OILPERM A | Halliburton | Non-ionic Surfactant | | Listed Below | | | | |
| LD-2850 | Multi-Chem | Friction Reducer | | Listed Below | | | | |
| SAND-PREMIUM WHITE-30/50, BULK | Halliburton | Proppant | | Listed Below | | | | |
| MC MX 8-4743 | Multi-Chem | Biocide | | Listed Below | | | | |
| SCALECHEK LP-50 | Halliburton | Scale Inhibitor | | Listed Below | | | | |
| CALCIUM CHLORIDE - FLAKE | Halliburton | Additive | | Listed Below | | | | |
| SAND-COMMON WHITE-100 MESH, SSA-2, BULK (100003676) | Halliburton | Proppant | | Listed Below | | | | |

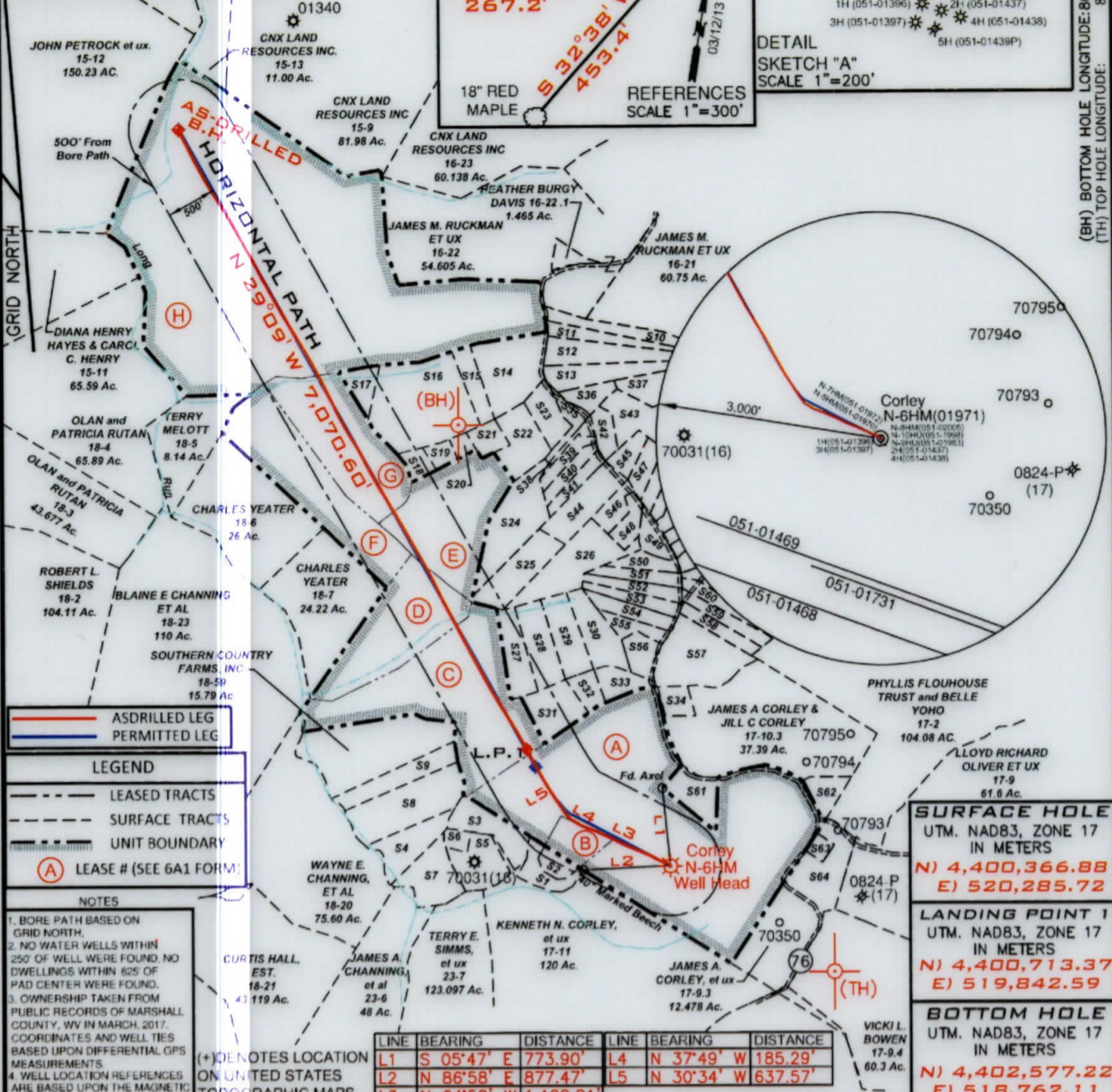
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| | | | | | | | | |
|---|-------------|------------------------|---|-------------|--------------|----------|--|--|
| SAND- PREMIUM WHITE-40/70, BULK | Halliburton | Proppant | | | Listed Below | | | |
| FDP-S1296-17 | Halliburton | Corrosion Inhibitor | | | Listed Below | | | |
| HYDROCHLORI C ACID | Halliburton | Solvent | | | Listed Below | | | |
| Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients. | | | | | | | | |
| | | | Crystalline silica, quartz | 14808-60-7 | 100.00000 | 13.39442 | | |
| | | | Hydrochloric acid | 7647-01-0 | 7.50000 | 0.04517 | | |
| | | | Hydrotreated light petroleum distillate | 64742-47-8 | 30.00000 | 0.02703 | | |
| | | | Sodium chloride | 7647-14-5 | 30.00000 | 0.02703 | | |
| | | | Sodium Nitrate | 7631-99-4 | 60.00000 | 0.02059 | | |
| | | | Methanol | 67-56-1 | 100.00000 | 0.00678 | | |
| | | | Phosphonic acid salt | Proprietary | 30.00000 | 0.00634 | | |
| | | | Ammonium Chloride | 12125-02-9 | 5.00000 | 0.00451 | | |
| | | | Alcohols, C-12-16, ethoxylated | 68551-12-2 | 5.00000 | 0.00451 | | |
| | | | 9-octadecenamide, n, n- bis-2(hydroxy-ethyl)-, (Z) | 93-83-4 | 5.00000 | 0.00451 | | |
| | | | Calcium chloride | 10043-52-4 | 100.00000 | 0.00108 | | |
| | | | Ethanol | 64-17-5 | 60.00000 | 0.00028 | | |
| | | | Oxyalkylated phenolic resin | Proprietary | 30.00000 | 0.00018 | | |
| | | | Heavy aromatic petroleum naphtha | 64742-94-5 | 30.00000 | 0.00014 | | |

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(BH) 8,748' (TH) 3,768'

CORLEY LEASE WELL N-6HM
351.749± ACRES



TOP HOLE LATITUDE: 39°47'30"
 BOTTOM HOLE LATITUDE: 39°47'30"
 N-7HM(051-01972) N-8HM(051-02005)
 N-6HM(051-01971) N-10HU(051-1998)
 N-5HM(051-01970) N-8HU(051-01983)
 1H (051-01396) 2H (051-01437)
 3H (051-01397) 4H (051-01438)
 5H (051-01439P)

DETAIL SKETCH "A"
 SCALE 1"=200'

(BH) BOTTOM HOLE LONGITUDE: 80°45'00"
 (TH) TOP HOLE LONGITUDE: 80°45'00"

ASDRILLED LEG
 PERMITTED LEG

LEGEND
 LEASED TRACTS
 SURFACE TRACTS
 UNIT BOUNDARY
 LEASE # (SEE 6A1 FORM)

NOTES
 1. BORE PATH BASED ON GRID NORTH.
 2. NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 825' OF PAD CENTER WERE FOUND.
 3. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 4. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
 (+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

SURFACE HOLE
 UTM, NAD83, ZONE 17
 IN METERS
 N) 4,400,366.88
 E) 520,285.72

LANDING POINT 1
 UTM, NAD83, ZONE 17
 IN METERS
 N) 4,400,713.37
 E) 519,842.59

BOTTOM HOLE
 UTM, NAD83, ZONE 17
 IN METERS
 N) 4,402,577.22
 E) 518,762.11

FILE NUMBER _____
 DRAWING NUMBER CORLEY_WP_N-6HM
 SCALE 1" = 1500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION SUBMETER MAPPING
 GRADE GPS

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S. 708
 David L Jackson

DAVID JACKSON
 LICENSED
 NO. 708
 STATE OF WEST VIRGINIA
 PROFESSIONAL SURVEYOR
 SEAL

DATE: OCTOBER 22, 2017
 OPERATORS WELL NO. CORLEY N-6HM
 API WELL NO. 47-051-01971
 STATE COUNTY PERMIT

LOCATION ELEVATION 1255.3' WATERSHED (HUC 10) Fish Creek
 DISTRICT Franklin COUNTY Marshall
 QUADRANGLE Powhatan Point 7.5' LEASE NUMBER SEE 6A1 Form

SURFACE OWNER James A. & Jill C. Corley, et al ACREAGE 92.61
 OIL & GAS ROYALTY OWNER James A. & Jill C. Corley, et al LEASE ACREAGE 92.61
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY) ASDRILLED
 PLUG & ABANDON CLEAN OUT & REPLUG
 TARGET FORMATION Marcellus ESTIMATED DEPTH TVD: 6,623' TMD: 14,316'

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



JACKSON SURVEYING INC.
 2413 East Pike St, #112
 Clarksburg, WV 26301
 304-623-5851

COUNTY NAME PERMIT

**CORLEY LEASE
WELL N-6HM
351.749± ACRES**

GRID NORTH

PERMITTED

| |
|--|
| SURFACE HOLE UTM. NAD83, ZONE 17 IN METERS N) 4,400,366.79 E) 520,285.59 |
| LANDING POINT 1 UTM. NAD83, ZONE 17 IN METERS N) 4,400,660.93 E) 519,870.68 |
| BOTTOM HOLE UTM. NAD83, ZONE 17 IN METERS N) 4,402,578.60 E) 518,763.51 |

| Number | TAX MAP -PARCEL | ADJOINER OWNER | ACRES |
|--------|-----------------|---|--------|
| S1 | 17-12 | James A. & Jill C. Corley | 3.33 |
| S2 | 17-12.1 | Williams Ohio Valley Midstream LLC | 1.67 |
| S3 | 18-13.8 | Lori D. Carpenter | 5.545 |
| S4 | 18-29 | Carl G Berg | 5.319 |
| S5 | 18-32 | Kenneth E Rastall | 5.335 |
| S6 | 18-32.1 | Lori D. Carpenter | 1.165 |
| S7 | 18-31 | Kenneth E Rastall | 6.94 |
| S8 | 18-13.10 | Carl Berg | 10.88 |
| S9 | 18-30 | John Schmidt et al | 5.46 |
| S10 | 18-56 | William E. O'Hara | 3.965 |
| S11 | 18-55 | William E. O'Hara | 3.202 |
| S12 | 18-28 | Dotson Harrison et ux | 6.36 |
| S13 | 18-28.1 | Carol Diane Helmick | 5.696 |
| S14 | 18-11 | Benjamin Robinson | 10.883 |
| S15 | 18-11.2 | Edward Lee Burge Jr. | 2.0 |
| S16 | 18-11.1 | Edward Lee Burge Jr. | 18.0 |
| S17 | 18-15 | Edward Lee Burge Jr. | 2.495 |
| S18 | 18-10.1 | David V Anderson Et Ux | 1.65 |
| S19 | 18-10.2 | David V Anderson Et Ux | 1.377 |
| S20 | 18-10 | David & Nancy Anderson | .907 |
| S21 | 18-12 | William L Wayne Et Ux | 2.270 |
| S22 | 18-15.1 | Jason Blair | 5.948 |
| S23 | 18-15.2 | Edward L. Burge | 4.171 |
| S24 | 18-13.3 | Robert G Closterman | 9.813 |
| S25 | 18-17 | Michael Fincham & Kezia Winters | 6.555 |
| S26 | 18-13.1 | Cory A Holt | 9.248 |
| S27 | 18-34 | Jodi A & Gary A Hall | 5.002 |
| S28 | 18-13.13 | Glenn E & Sandra K Whisler | 5.59 |
| S29 | 18-13.6 | Glenn Eugene Whisler Et Ux | 5.384 |
| S30 | 18-13.7 | Victor W. Woods Jr. & Jessica L. Woods | 5.255 |
| S31 | 18-33 | Sandra K & Glenn E Whisler | 5.343 |
| S32 | 18-13.14 | Glenn E & Sandra K Whisler | 2.116 |
| S33 | 18-48 | Marvin Dean Roberts Et Ux & Brad & Bridget Williams | 2.920 |
| S34 | 17-10.4 | Ron & Winnie Murrin et al | 2.01 |
| S35 | 18-36 | Ruth Mulligan Est. | 2.003 |
| S36 | 18-50 | Steven G. Berisford | 2.170 |
| S37 | 18-13.2 | Steven G. Berisford | 6.023 |
| S38 | 18-13.5 | Bryan Wesley | 1.023 |
| S39 | 18-47 | Robert Richard Pelley II & Susan Lynn Briggs | 2.01 |
| S40 | 18-46 | Dale W. & Patricia Gardner | 2.03 |
| S41 | 18-45 | Michael Fincham & Kezia Winters | 2.07 |
| S42 | 18-49 | Tanner Butler | 2.023 |
| S43 | 18-13 | Southern Country Farms Inc | 11.054 |
| S44 | 18-14 | Michael Fincham & Kezia Winters | 6.386 |
| S45 | 18-37 | John Wetzal | 2.064 |
| S46 | 18-40 | Cory A Holt | 2.237 |
| S47 | 18-38 | Marlon Connor | 2.231 |
| S48 | 18-41 | Cory A Holt | 2.308 |
| S49 | 18-25 | Charles & Marra Rayl | 2.521 |
| S50 | 18-44 | Renee Streight | 2.133 |
| S51 | 18-43 | Roy Butler | 2.532 |
| S52 | 18-51 | Roger Hall Jr. | 2.505 |
| S53 | 18-52 | Roger Hall Jr. | 2.536 |
| S54 | 18-61 | Roger White Jr. | 2.984 |
| S55 | 18-57 | Marvin Roberts | 2.228 |
| S56 | 18-18 | Linda Coen | 3.0 |
| S57 | 18-19 | Roger White Jr. | 10 |
| S58 | 18-41 | Cory A Holt | 2.308 |
| S59 | 18-35 | Mary Anderson | 2.308 |
| S60 | 18-58 | Kevin Roberts | 2.635 |
| S61 | 17-10.1 | James & Jill Corley | 4.51 |
| S62 | 17-10.2 | Sidney Pozell Et Ux Ests | 2.6 |
| S63 | 17-9.1 | Jeri J White | 1 |
| S64 | 17-9.2 | Jeri J White | 7.136 |



P.S. 708 *David L Jackson*



**TUG HILL
OPERATING**

OPERATOR'S
WELL #: Corley N-6HM
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-01971

WELL PLAT
PAGE 2 OF 2
DATE: 10/22/2019