



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street, S.E.
Charleston, WV 25304
(304) 926-0450
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Austin Caperton, Cabinet Secretary
www.dep.wv.gov

March 6, 2018
PERMIT MODIFICATION APPROVAL
Horizontal 6A / New Drill

TUG HILL OPERATING, LLC
1320 SOUTH UNIVERSITY DRIVE, SUITE 500

FORT WORTH , TX 76107

Re: Permit Modification Approval for TEN HIGH 1S-5HM
47-051-01964-00-00

Modified Lateral

TUG HILL OPERATING, LLC

The Office of Oil and Gas has reviewed the attached permit modification for the above referenced permit. The attached modification has been approved and well work may begin. Please be reminded that the oil and gas inspector is to be notified twenty-four (24) hours before permitted well work is commenced.

If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
Chief

Operator's Well Number: TEN HIGH 1S-5HM
Farm Name: LAWRENCE & SHIRLEY CONKLE ESTS
U.S. WELL NUMBER: 47-051-01964-00-00
Horizontal 6A / New Drill
Date Issued: March 6, 2018

Promoting a healthy environment.

03/09/2018

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

1) Well Operator: Tug Hill Operating, LLC 494510851 Marshall Meade Glen Easton 7.5'
Operator ID County District Quadrangle

2) Operator's Well Number: Ten High 1S-5HM Well Pad Name: Ten High

3) Farm Name/Surface Owner: Lawrence & Shirley Conkle, ests Public Road Access: Shepherd Ridge Lane CR 21/9

4) Elevation, current ground: 1321' Elevation, proposed post-construction: 1310'

5) Well Type (a) Gas Oil Underground Storage

Other _____

(b) If Gas Shallow Deep

Horizontal _____

6) Existing Pad: Yes or No No

John
12/20/17

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus is the target formation at a depth of 6713' - 6765', thickness of 52' and anticipated pressure of approx. 3800 psi

8) Proposed Total Vertical Depth: 6,865'

9) Formation at Total Vertical Depth: Onondoga

10) Proposed Total Measured Depth: 17,466'

11) Proposed Horizontal Leg Length: ~~40,180'~~ *FE* 9711.69' *LA*

12) Approximate Fresh Water Strata Depths: 70', 1026'

13) Method to Determine Fresh Water Depths: Offset well reports or noticeable flow at the flowline or when need to start soaping

14) Approximate Saltwater Depths: 2180'

15) Approximate Coal Seam Depths: Sewickly Coal - 935' and Pittsburgh Coal - 1020'

16) Approximate Depth to Possible Void (coal mine, karst, other): None anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes No

(a) If Yes, provide Mine Info: Name: Marshall County Coal Co. / Marshall County Mine
Depth: 1020' TVD and 290' subsea level
Seam: Pittsburgh #8
Owner: Murray Energy / Consolidated Coal Co.

18) CASING AND TUBING PROGRAM

| TYPE | Size (in) | New or Used | Grade | Weight per ft. (lb/ft) | FOOTAGE: For Drilling (ft) | INTERVALS: Left in Well (ft) | CEMENT: Fill-up (Cu. Ft.)/CTS |
|--------------|-----------|-------------|-------|------------------------|----------------------------|------------------------------|-------------------------------|
| Conductor | 30" | NEW | BW | BW | 110' | 100' | 216FT^3(CTS) |
| Fresh Water | 13 3/8" | NEW | H40 | 48# | 1,086' | 1,076' | 1039ft^3(CTS) |
| Coal | 13 3/8" | NEW | H40 | 48# | 1,086' | 1,076' | 1039ft^3(CTS) |
| Intermediate | 9 5/8" | NEW | J55 | 36# | 2,814' | 2,804' | 917ft^3(CTS) |
| Production | 5 1/2" | NEW | P110 | 20# | 17,476' | 17,466' | 4456ft^3(CTS) |
| Tubing | 2 3/8" | NEW | N80 | 4.7# | | 7,120' | |
| Liners | N/A | | | | | | |

[Handwritten signature]
12/20/17

| TYPE | Size (in) | Wellbore Diameter (in) | Wall Thickness (in) | Burst Pressure (psi) | Anticipated Max. Internal Pressure (psi) | Cement Type | Cement Yield (cu. ft./k) |
|--------------|-----------|------------------------|---------------------|----------------------|--|-------------|--------------------------|
| Conductor | 30" | 36" | 1.0 | 2,333 | 1,866 | CLASS A | 1.2 |
| Fresh Water | 13 3/8" | 17 1/2" | .33 | 1,730 | 1,384 | SEE #24 | 1.2 |
| Coal | 13 3/8" | 17 1/2" | .33 | 1,730 | 1,384 | SEE#24 | 1.2 |
| Intermediate | 9 5/8" | 12 1/4" | .352 | 3,520 | 2,816 | SEE#24 | 1.19 |
| Production | 5 1/2" | 8 7/8_8 3/4 | .361 | 12,640 | 10,112 | SEE#24 | 1.17/1.19 |
| Tubing | 2 3/8" | | .19 | 11,200 | 8960 | | |
| Liners | N/A | | | | | | |

PACKERS

| | | | | |
|-------------|-----|--|--|--|
| Kind: | N/A | | | |
| Sizes: | N/A | | | |
| Depths Set: | N/A | | | |

WW-6B
(10/14)

API NO. 47-051 - 01964 MOD

OPERATOR WELL NO. Ten High 1S-5HM

Well Pad Name: Ten High

JZ
12/20/17

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Drill through the Marcellus and TD Pilot Hole 100' into the Onondaga. Log vertical section and run a solid cement plug back to proposed KOP. Drill curve and lateral per proposed well plan, run and cement production casing. Perform CBL from 60 deg to surface, make cleanout run, and stimulate.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Well to be completed with approximately 25,450,000 lb proppant and 393,476 bbl of water. Max rate = 80 bpm; max psi = 9,000#.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 16.2

22) Area to be disturbed for well pad only, less access road (acres): 5.92

23) Describe centralizer placement for each casing string:

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

24) Describe all cement additives associated with each cement type:

*See Attached

25) Proposed borehole conditioning procedures:

Will circulate a minimum of 3 hours at TD, short trip to curve, circulate bottoms up, check for flow, POOH

*Note: Attach additional sheets as needed.

WW-6B Attachment to #24

Conductor, Coal and Fresh Water Casing Cement:

Premium NE-1 + 2% CaCl

- Premium NE-1 – Class A Portland API Spec
- CaCl – Calcium Chloride

Intermediate Casing:

Premium NE-1 + 2% bwoc CaCl₂ + 46.5% Fresh Water

- Premium NE-1 – Class A Portland API spec
- CaCl₂ – Calcium Chloride
- Cello Flake – Fluid Loss Preventer

Kick Off Plug:

Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L + 38% Fresh Water

- Class H – Increased Compressive Strength Cement
- Sodium Metasilicate – Free Water Control; Early Strength Additive
- R-3 – Cement Retarder
- FP-13L – Anti-Foaming Agent
- CaCl₂ – Calcium Chloride
- Cello Flake – Fluid Loss Preventer

Production Casing Cement:

Lead: *50:50 (Poz:Premium NE-1) + .2% R-3 + .2% MPA-170 + .75 gal/100sk FP-13L*

Tail: *Premium NE-1 + .1% bwoc ASA-301 + 60lb/sk ASCA-1 + .35% bwoc BA-10A + .25% bwoc MPA-170, 44 lb sack + .5% bwoc R-3 + .75 gals/100sk FP-13L*

- Poz – Fly Ash
- Premium NE-1 – Class A Portland API spec
- R-3 – Cement Retarder
- MPA-170 – Gelling Agent
- FP-13L – Anti-Foaming Agent
- ASA-301 – Free Water Control Agent
- BA-10A – Bonding Agent
- ASCA-1 – Solubility Additive



Well: Ten High 1S-05HM (P)
 Site: Ten High
 Project: Marshall County, West Virginia
 Design: rev3

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 | 2000.00 | 0.00 | 0.00 | 2000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | KOP Begin 11°/100' build |
| 3 | 2500.00 | 5.00 | 259.46 | 2459.37 | -3.99 | -21.43 | 1.00 | 259.46 | -4.72 | Begin 5.00° tangent |
| 4 | 4006.37 | 5.00 | 259.46 | 4000.00 | -28.00 | -150.51 | 0.00 | 0.00 | -33.14 | Begin 3°/100' build |
| 5 | 4639.18 | 23.98 | 259.46 | 4609.88 | -56.85 | -305.48 | 3.00 | -0.01 | -67.25 | Begin 23.98° tangent |
| 6 | 6336.63 | 23.98 | 259.46 | 6160.77 | -183.11 | -883.83 | 0.00 | 0.00 | -216.55 | Begin 10°/100' build/turn |
| 7 | 7285.69 | 89.00 | 155.00 | 6742.00 | -795.21 | -969.51 | 10.00 | -103.65 | 352.33 | Begin 89.00° lateral section |
| 8 | 7505.69 | 89.00 | 155.00 | 6745.84 | -894.57 | -876.55 | 0.00 | 0.00 | 572.16 | Begin 2°/100' turn |
| 9 | 7755.68 | 89.00 | 150.00 | 6750.20 | -1216.21 | -761.17 | 2.00 | -90.01 | 821.28 | Begin 89.00° lateral section |
| 10 | 17465.58 | 89.00 | 150.00 | 6919.13 | -9523.91 | 4093.13 | 0.00 | 0.00 | 0458.17 | PBHL/TD 17465.58 MD/6919.13 TVD |

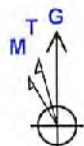
Geodetic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD83 West Virginia - HARN
 Ellipsoid: GRS 1980
 Zone: Zone 17N (B4 W to 78 W)

System Datum: Mean Sea Level
 Depth Reference: GL=1310 @ 1310.00usft

Northing: 14456508.50 Easting: 1730099.88 Latitude: 39.80670630 Longitude: -80.88076685

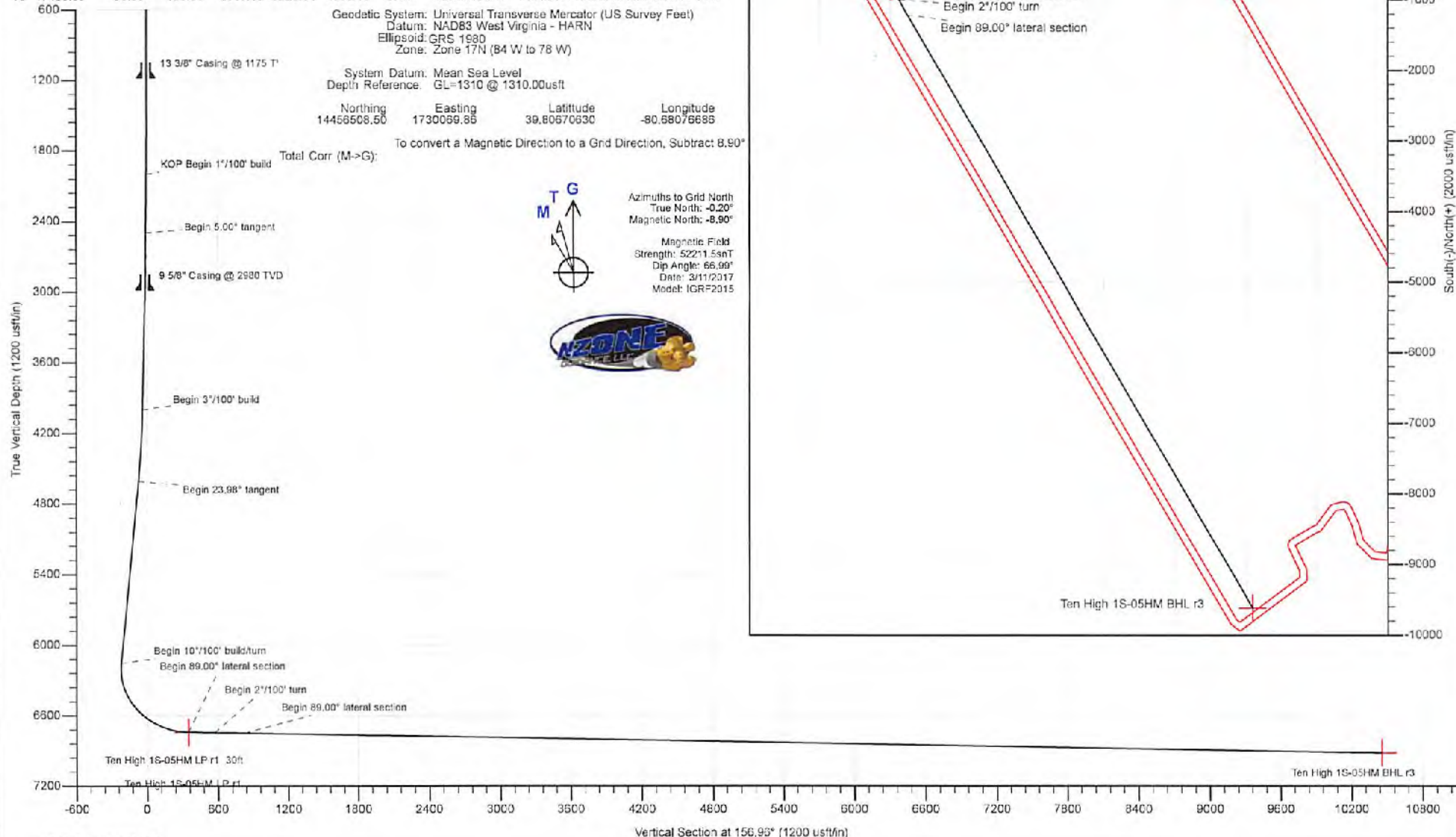
To convert a Magnetic Direction to a Grid Direction, Subtract 8.90°

Total Corr. (M->G):



Azimuths to Grid North
 True North: -0.20°
 Magnetic North: -8.90°

Magnetic Field
 Strength: 52211.5nT
 Dip Angle: 66.99°
 Date: 3/11/2017
 Model: IGRF2015



SI-01964 map



Planning Report - Geographic

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| Database: | DB_Jul2216dt_v14 | Local Co-ordinate Reference: | Well Ten High 1S-05HM (P) |
| Company: | Tug Hill Operating LLC | TVD Reference: | GL=1310 @ 1310.00usft |
| Project: | Marshall County, West Virginia | MD Reference: | GL=1310 @ 1310.00usft |
| Site: | Ten High | North Reference: | Grid |
| Well: | Ten High 1S-05HM (P) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Hole | | |
| Design: | rev3 | | |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | Marshall County, West Virginia | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | NAD83 West Virginia - HARN | | |
| Map Zone: | Zone 17N (84 W to 78 W) | | |

| | | | | | |
|------------------------------|-----------|---------------------|--------------------|--------------------------|--------------|
| Site | Ten High | | | | |
| Site Position: | | Northing: | 14,456,545.60 usft | Latitude: | 39.80680885 |
| From: | Lat/Long | Easting: | 1,730,001.41 usft | Longitude: | -80.68101011 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.20 ° |

| | | | | | | |
|-----------------------------|----------------------|-----------|----------------------------|--------------------|----------------------|---------------|
| Well | Ten High 1S-05HM (P) | | | | | |
| Well Position | +N/-S | 0.00 usft | Northing: | 14,456,508.50 usft | Latitude: | 39.80670630 |
| | +E/-W | 0.00 usft | Easting: | 1,730,069.86 usft | Longitude: | -80.68076686 |
| Position Uncertainty | 0.00 usft | | Wellhead Elevation: | 0.00 usft | Ground Level: | 1,310.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Original Hole | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2015 | 3/11/2017 | -8.70 | 66.98 | 52,211.45563010 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | rev3 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 156.96 |

| | | | | |
|---------------------------------|------------------------|--------------------------------|------------------|----------------|
| Plan Survey Tool Program | Date | 12/15/2017 | | |
| Depth From (usft) | Depth To (usft) | Survey (Wellbore) | Tool Name | Remarks |
| 1 | 0.00 | 17,464.80 rev3 (Original Hole) | MWD | |
| | | | MWD - Standard | |

51-01964/med



Planning Report - Geographic

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| Database: | DB_Jul2216dt_v14 | Local Co-ordinate Reference: | Well Ten High 1S-05HM (P) |
| Company: | Tug Hill Operating LLC | TVD Reference: | GL=1310 @ 1310.00usft |
| Project: | Marshall County, West Virginia | MD Reference: | GL=1310 @ 1310.00usft |
| Site: | Ten High | North Reference: | Grid |
| Well: | Ten High 1S-05HM (P) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Hole | | |
| Design: | rev3 | | |

| Plan Sections | | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|---------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (") | Target | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 2,000.00 | 0.00 | 0.00 | 2,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 2,500.00 | 5.00 | 259.46 | 2,499.37 | -3.99 | -21.43 | 1.00 | 1.00 | 0.00 | 259.46 | | |
| 4,006.37 | 5.00 | 259.46 | 4,000.00 | -28.00 | -150.51 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 4,639.18 | 23.98 | 259.46 | 4,609.88 | -56.85 | -305.48 | 3.00 | 3.00 | 0.00 | -0.01 | | |
| 6,336.63 | 23.98 | 259.46 | 6,160.77 | -183.11 | -983.83 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 7,285.69 | 89.00 | 155.00 | 6,742.00 | -795.21 | -969.51 | 10.00 | 6.85 | -11.01 | -103.65 | Ten High 1S-05HM LF | |
| 7,505.69 | 89.00 | 155.00 | 6,745.84 | -994.57 | -876.55 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 7,755.68 | 89.00 | 150.00 | 6,750.20 | -1,216.21 | -761.17 | 2.00 | 0.00 | -2.00 | -90.01 | | |
| 17,465.58 | 89.00 | 150.00 | 6,919.13 | -9,623.91 | 4,093.13 | 0.00 | 0.00 | 0.00 | 0.00 | Ten High 1S-05HM BI | |

51-01964
MBO



Planning Report - Geographic

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| Database: | DB_Jul2216dt_v14 | Local Co-ordinate Reference: | Well Ten High 1S-05HM (P) |
| Company: | Tug Hill Operating LLC | TVD Reference: | GL=1310 @ 1310.00usft |
| Project: | Marshall County, West Virginia | MD Reference: | GL=1310 @ 1310.00usft |
| Site: | Ten High | North Reference: | Grid |
| Well: | Ten High 1S-05HM (P) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Hole | | |
| Design: | rev3 | | |

| Planned Survey | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-------------|--------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude | |
| 14,799.97 | 89.00 | 150.00 | 6,872.75 | -7,315.79 | 2,760.50 | 14,448,192.72 | 1,732,830.37 | 39.78858790 | -80.67103326 | |
| 14,899.97 | 89.00 | 150.00 | 6,874.49 | -7,402.38 | 2,810.50 | 14,449,106.13 | 1,732,830.36 | 39.78634960 | -80.67085644 | |
| 14,999.97 | 89.00 | 150.00 | 6,876.23 | -7,488.96 | 2,860.48 | 14,449,019.54 | 1,732,830.35 | 39.78611131 | -80.67067961 | |
| 15,099.97 | 89.00 | 150.00 | 6,877.97 | -7,575.55 | 2,910.48 | 14,448,932.95 | 1,732,830.35 | 39.78587301 | -80.67050279 | |
| 15,199.97 | 89.00 | 150.00 | 6,879.71 | -7,662.14 | 2,960.48 | 14,448,846.36 | 1,733,030.34 | 39.78563471 | -80.67032597 | |
| 15,299.97 | 89.00 | 150.00 | 6,881.45 | -7,748.73 | 3,010.47 | 14,448,759.77 | 1,733,030.33 | 39.78539641 | -80.67014915 | |
| 15,399.97 | 89.00 | 150.00 | 6,883.19 | -7,835.32 | 3,060.46 | 14,448,673.18 | 1,733,130.33 | 39.78515811 | -80.66997233 | |
| 15,499.97 | 89.00 | 150.00 | 6,884.93 | -7,921.91 | 3,110.46 | 14,448,586.60 | 1,733,180.32 | 39.78491981 | -80.66979551 | |
| 15,599.97 | 89.00 | 150.00 | 6,886.67 | -8,008.50 | 3,160.45 | 14,448,500.01 | 1,733,230.31 | 39.78468150 | -80.66961869 | |
| 15,699.97 | 89.00 | 150.00 | 6,888.41 | -8,095.09 | 3,210.44 | 14,448,413.42 | 1,733,280.30 | 39.78444320 | -80.66944187 | |
| 15,799.97 | 89.00 | 150.00 | 6,890.15 | -8,181.67 | 3,260.44 | 14,448,326.83 | 1,733,330.30 | 39.78420490 | -80.66926506 | |
| 15,899.97 | 89.00 | 150.00 | 6,891.89 | -8,268.26 | 3,310.43 | 14,448,240.24 | 1,733,380.29 | 39.78398660 | -80.66908825 | |
| 15,999.97 | 89.00 | 150.00 | 6,893.63 | -8,354.85 | 3,360.42 | 14,448,153.65 | 1,733,430.28 | 39.78372830 | -80.66891143 | |
| 16,099.97 | 89.00 | 150.00 | 6,895.37 | -8,441.44 | 3,410.42 | 14,448,067.06 | 1,733,480.28 | 39.78349000 | -80.66873462 | |
| 16,199.97 | 89.00 | 150.00 | 6,897.11 | -8,528.03 | 3,460.41 | 14,447,980.47 | 1,733,530.27 | 39.78325169 | -80.66855781 | |
| 16,299.97 | 89.00 | 150.00 | 6,898.85 | -8,614.62 | 3,510.40 | 14,447,893.89 | 1,733,580.26 | 39.78301339 | -80.66838100 | |
| 16,399.97 | 89.00 | 150.00 | 6,900.59 | -8,701.21 | 3,560.39 | 14,447,807.30 | 1,733,630.26 | 39.78277509 | -80.66820420 | |
| 16,499.97 | 89.00 | 150.00 | 6,902.33 | -8,787.80 | 3,610.39 | 14,447,720.71 | 1,733,680.25 | 39.78253678 | -80.66802739 | |
| 16,599.97 | 89.00 | 150.00 | 6,904.07 | -8,874.38 | 3,660.38 | 14,447,634.12 | 1,733,730.24 | 39.78229848 | -80.66785058 | |
| 16,699.97 | 89.00 | 150.00 | 6,905.81 | -8,960.97 | 3,710.37 | 14,447,547.53 | 1,733,780.24 | 39.78206018 | -80.66767378 | |
| 16,799.97 | 89.00 | 150.00 | 6,907.55 | -9,047.56 | 3,760.37 | 14,447,460.94 | 1,733,830.23 | 39.78182187 | -80.66749698 | |
| 16,899.97 | 89.00 | 150.00 | 6,909.29 | -9,134.15 | 3,810.36 | 14,447,374.35 | 1,733,880.22 | 39.78158357 | -80.66732018 | |
| 16,999.97 | 89.00 | 150.00 | 6,911.03 | -9,220.74 | 3,860.35 | 14,447,287.76 | 1,733,930.22 | 39.78134526 | -80.66714338 | |
| 17,099.97 | 89.00 | 150.00 | 6,912.77 | -9,307.33 | 3,910.35 | 14,447,201.18 | 1,733,980.21 | 39.78110696 | -80.66696658 | |
| 17,199.97 | 89.00 | 150.00 | 6,914.51 | -9,393.92 | 3,960.34 | 14,447,114.59 | 1,734,030.20 | 39.78088865 | -80.66678978 | |
| 17,299.97 | 89.00 | 150.00 | 6,916.25 | -9,480.51 | 4,010.33 | 14,447,028.00 | 1,734,080.20 | 39.78063035 | -80.66661298 | |
| 17,399.97 | 89.00 | 150.00 | 6,917.99 | -9,567.09 | 4,060.33 | 14,446,941.41 | 1,734,130.19 | 39.78039204 | -80.66643619 | |
| 17,465.58 | 89.00 | 150.00 | 6,919.13 | -9,623.91 | 4,093.13 | 14,446,864.59 | 1,734,162.99 | 39.78023568 | -80.66632018 | |

PBHL/TD 17465.58 MD/6919.13 TVD

| Design Targets | | | | | | | | | | |
|--|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------|--------------|--|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude | |
| Ten High 1S-05HM LP r - hit/miss target - Shape - Point | 0.00 | 0.01 | 6,742.00 | -795.21 | -889.51 | 14,455,713.29 | 1,729,100.35 | 39.80453190 | -80.68422900 | |
| Ten High 1S-05HM LP r - plan misses target center by 29.88usft at 7288.30usft MD (6742.05 TVD, -797.58 N, -968.41 E) - Point | 0.00 | 0.01 | 6,742.00 | -810.21 | -895.49 | 14,455,698.29 | 1,729,074.37 | 39.80449098 | -80.68432188 | |
| Ten High 1S-05HM BHL - plan hits target center - Point | 0.00 | 0.00 | 6,919.13 | -9,623.91 | 4,093.13 | 14,446,864.59 | 1,734,162.99 | 39.78023568 | -80.66632018 | |

| Casing Points | | | | | |
|-----------------------|-----------------------|---------------------------|---------------------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") | |
| 1,175.00 | 1,175.00 | 13 3/8" Casing @ 1175 TVD | 13-3/8 | 17-1/2 | |
| 2,982.47 | 2,980.00 | 9 5/8" Casing @ 2980 TVD | 9-5/8 | 12-1/4 | |

51-01904
MOD



Planning Report - Geographic

| | | | |
|------------------|--------------------------------|-------------------------------------|---------------------------|
| Database: | DB_Jul2216dt_v14 | Local Co-ordinate Reference: | Well Ten High 1S-05HM (P) |
| Company: | Tug Hill Operating LLC | TVD Reference: | GL=1310 @ 1310.00usft |
| Project: | Marshall County, West Virginia | MD Reference: | GL=1310 @ 1310.00usft |
| Site: | Ten High | North Reference: | Grid |
| Well: | Ten High 1S-05HM (P) | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Original Hole | | |
| Design: | rev3 | | |

| Plan Annotations | | | | |
|-----------------------------|-----------------------------|-------------------|-----------------|---------------------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
| | | +N/-S (usft) | +E/-W (usft) | |
| 2,000.00 | 2,000.00 | 0.00 | 0.00 | KOP Begin 1°/100' build |
| 2,500.00 | 2,489.37 | -3.99 | -21.43 | Begin 5.00° tangent |
| 4,006.37 | 4,000.00 | -28.00 | -150.51 | Begin 3°/100' build |
| 4,639.18 | 4,609.88 | -56.85 | -305.48 | Begin 23.98° tangent |
| 6,336.63 | 6,160.77 | -183.11 | -983.83 | Begin 10°/100' build/turn |
| 7,285.69 | 6,742.00 | -795.21 | -969.51 | Begin 89.00° lateral section |
| 7,505.69 | 6,745.84 | -894.57 | -876.55 | Begin 2°/100' turn |
| 7,755.68 | 6,750.20 | -1,216.21 | -761.17 | Begin 89.00° lateral section |
| 17,465.58 | 6,919.13 | -9,623.91 | 4,093.13 | PBHL/TD 17465.58 MD/8919.13 TVD |

WW-9
(4/16)

API Number 47 - 051

- 01964 MOD

Operator's Well No. Ten High 1S-5HM

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Tug Hill Operating, LLC OP Code 494510851

Watershed (HUC 10) Fish Creek Quadrangle Glen Easton 7.5'

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

Will a pit be used? Yes No

If so, please describe anticipated pit waste: AST Tanks with proper containment will be used for staging fresh water for frac and flow back water

Will a synthetic liner be used in the pit? Yes No If so, what ml.? AST Tanks will be used with proper containment

Proposed Disposal Method For Treated Pit Wastes:

- Land Application
- Underground Injection (UIC Permit Number: UIC 2459, UIC 965, UIC 359, UIC 2D0732540, UIC 2D0732523)
- Reuse (at API Number: _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: Yes - For Vertical and Horizontal Drilling

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

-If oil based, what type? Synthetic, petroleum, etc. Synthetic Oil Base

Additives to be used in drilling medium? Barite for weight

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. All drill cuttings to be disposed of in a Landfill

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

-Landfill or offsite name/permit number? Wetzel County Sanitary Landfill (SWF-1021 / WV0109105) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP ECF1386426)

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

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

Company Official Signature _____

Company Official (Typed Name) Sean Gasser

Company Official Title Engineer

Subscribed and sworn before me this 10 day of August, 2017

Kaitlin McCawley

Notary Public

My commission expires 05/08/2021



03/09/2018

51-01964
MOD

Form WW-9

Operator's Well No. Ten High 18-5HM

Tug Hill Operating, LLC

Proposed Revegetation Treatment: Acres Disturbed 16.20 Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2.5 Tons/acre

Seed Mixtures

| Temporary | | Permanent | |
|-----------------|----------|---------------|----------|
| Seed Type | lbs/acre | Seed Type | lbs/acre |
| Annual Ryegrass | 40 | Orchard Grass | 12 |
| Spring Oats | 96 | Ladino | 3 |
| | | White Clover | 2 |

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, include dimensions (L x W x D) of the pit, and dimensions (L x W), and area in acreage, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: *Jim Underhill*

Comments: _____

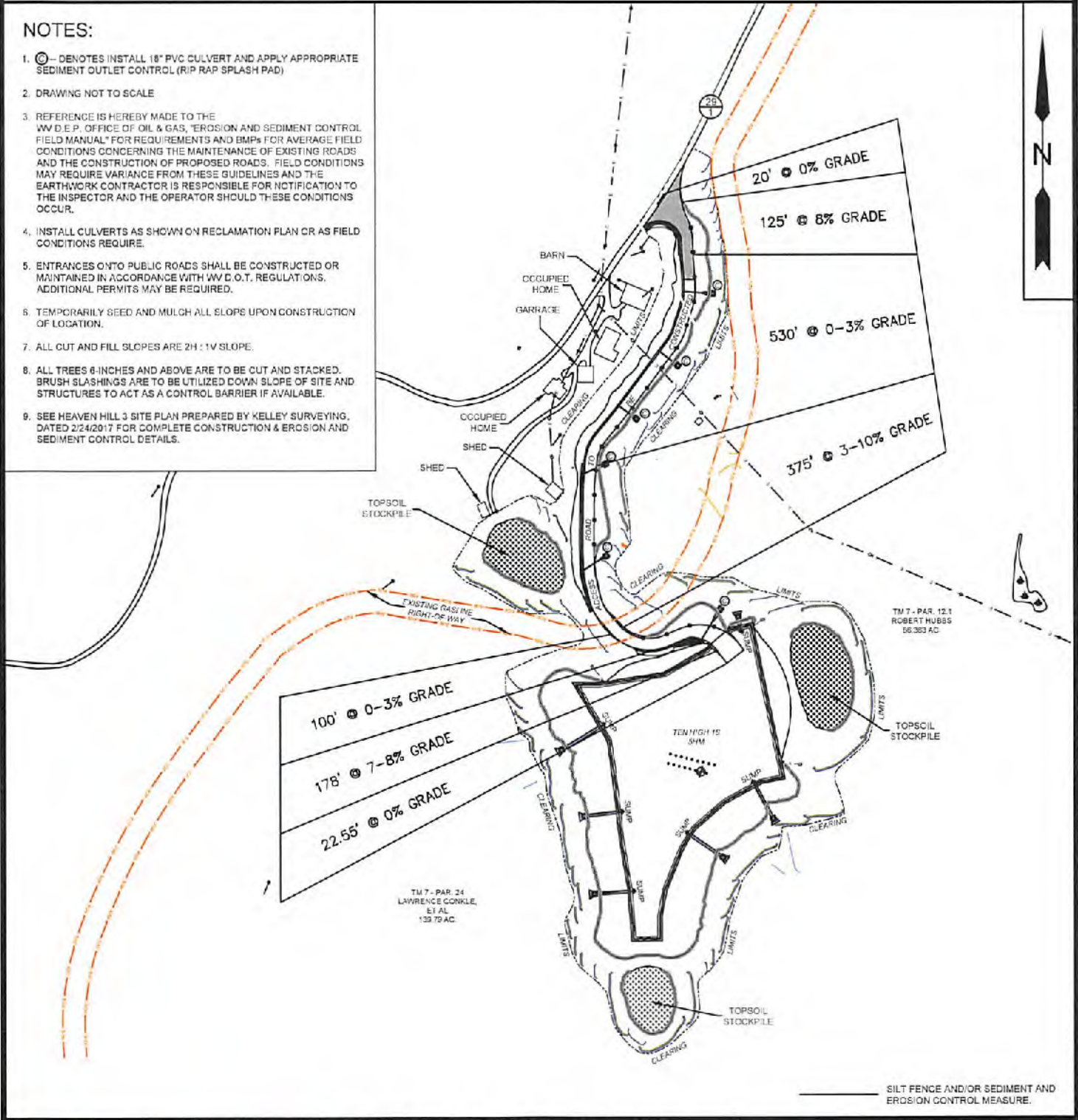
Title: Oil + Gas Inspector Date: 8/15/17

Field Reviewed? Yes No

PROPOSED TEN HIGH 1S - 5HM

NOTES:

1. - DENOTES INSTALL 18" PVC CULVERT AND APPLY APPROPRIATE SEDIMENT OUTLET CONTROL (R/P RAP SPLASH PAD)
2. DRAWING NOT TO SCALE
3. REFERENCE IS HEREBY MADE TO THE WV D.E.P. OFFICE OF OIL & GAS, "EROSION AND SEDIMENT CONTROL FIELD MANUAL" FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES AND THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE INSPECTOR AND THE OPERATOR SHOULD THESE CONDITIONS OCCUR.
4. INSTALL CULVERTS AS SHOWN ON RECLAMATION PLAN OR AS FIELD CONDITIONS REQUIRE.
5. ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED.
6. TEMPORARILY SEED AND MULCH ALL SLOPES UPON CONSTRUCTION OF LOCATION.
7. ALL CUT AND FILL SLOPES ARE 2H : 1V SLOPE.
8. ALL TREES 6-INCHES AND ABOVE ARE TO BE CUT AND STACKED. BRUSH SLASHINGS ARE TO BE UTILIZED DOWN SLOPE OF SITE AND STRUCTURES TO ACT AS A CONTROL BARRIER IF AVAILABLE.
9. SEE HEAVEN HILL 3 SITE PLAN PREPARED BY KELLEY SURVEYING, DATED 2/24/2017 FOR COMPLETE CONSTRUCTION & EROSION AND SEDIMENT CONTROL DETAILS.



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| | | | |
|------------------|----------|-------------------------|-----------|
| TOPO SECTION: | | OPERATOR: | |
| GLEN EASTON 7.5' | | PREPARED FOR: | |
| COUNTY | DISTRICT | TUG HILL OPERATING, LLC | |
| MARSHALL | MEADE | 380 SOUTHPOINTE BLVD | |
| DRAWN BY | | DATE | SCALE |
| K.G.M. | | 12-19-17 | 1" = 300' |
| JOB NO. | | CANONSBURG, PA 15317 | |
| 8655 | | | |

TUG HILL
OPERATING



Well Site Safety Plan

Tug Hill Operating, LLC

gk
12/20/18

Well Name: Ten High 1S-5HM

Pad Location: Ten High

Marshall County, West Virginia

UTM (meters), NAD83, Zone 17:
Northing-4,406,352.60
Easting -527,326.35

December 2017

51-01964MED

WW-9

PROPOSED TEN HIGH 1S - 5HM



SUPPLEMENT PG. 2



NOTE: CLOSEST WATER PURVEYOR
GRANDVIEW - DOOLIN PUBLIC SERVICE DISTRICT
PROCTOR, WV

LAT: 39.7137712
LON: -80.8258327
LOCATED: S 51°03'40" W AT 52,970' FROM TEN HIGH 1S - 5HM SURFACE LOCATION

Jan 8/15/17

| | | | | | |
|---|--|--------------------------|---|--|---|
|  <p>SLS Land & Energy Development Solutions from the ground up. P.O. Box 190 • 112 Vanhorn Drive • Granville, WV 26031 • (304) 492-5934 www.slsurveys.com</p> | TOPO SECTION: GLEN EASTON 7.5' | | OPERATOR: PREPARED FOR: TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317 | |  |
| | COUNTY MARSHALL | DISTRICT MEADE | DATE 08-09-17 | | |
| | DRAWN BY K.G.M. | JOB NO. 8655 | SCALE 1" = 2000' | | |
| | | | | | |

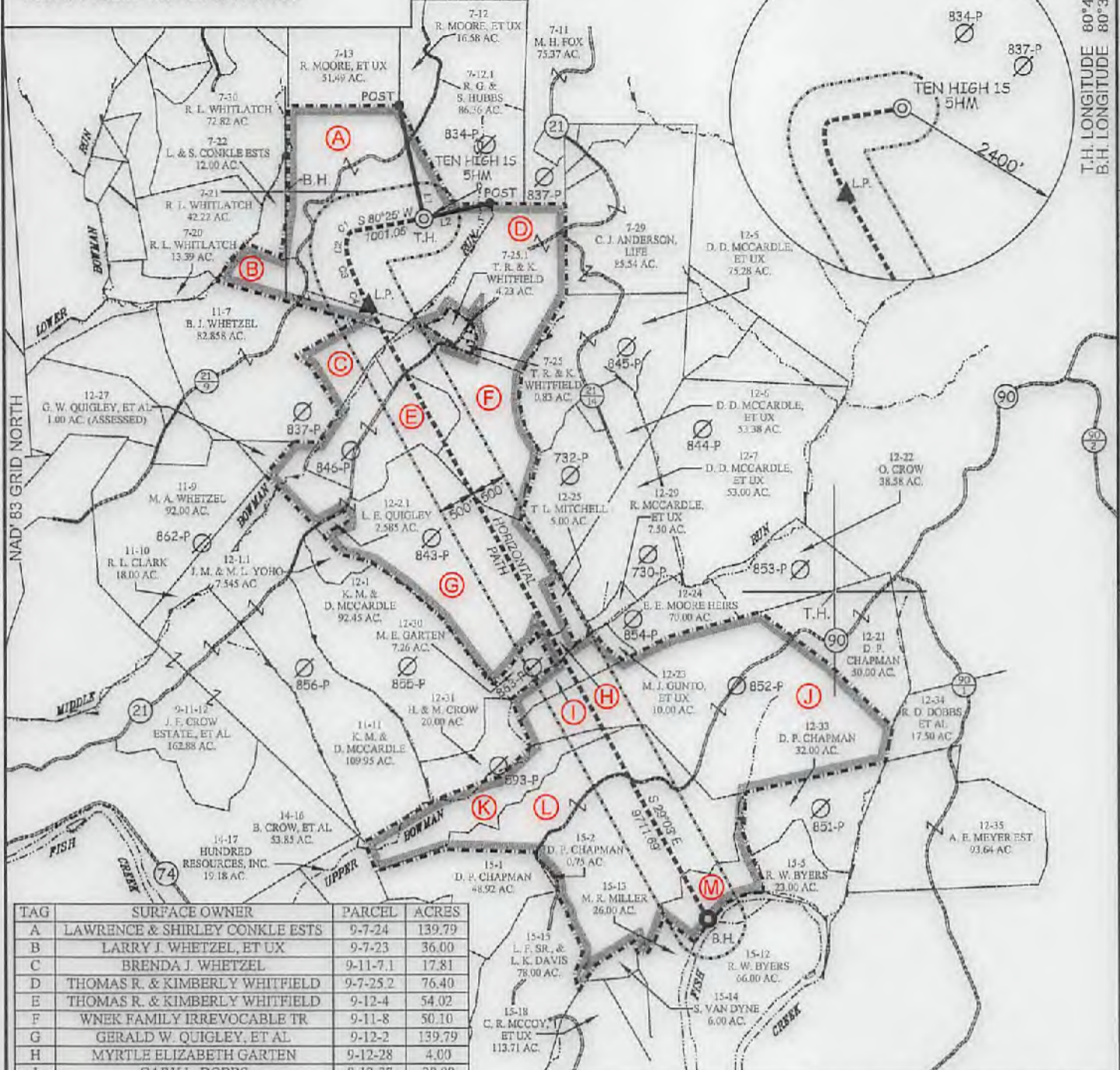
03/09/2018

TEN HIGH 1S LEASE
WELL 5HM
TUG HILL OPERATING

| LINE | BEARING | DISTANCE |
|------|------------|----------|
| L1 | N 12°15' W | 1621.00 |
| L2 | N 76°41' E | 945.95' |

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

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°37'30"



| TAG | SURFACE OWNER | PARCEL | ACRES |
|-----|--------------------------------|----------|--------|
| A | LAWRENCE & SHIRLEY CONKLE ESTS | 9-7-24 | 139.79 |
| B | LARRY J. WHETZEL, ET UX | 9-7-23 | 36.00 |
| C | BRENDA J. WHETZEL | 9-11-7.1 | 17.81 |
| D | THOMAS R. & KIMBERLY WHITFIELD | 9-7-25.2 | 76.40 |
| E | THOMAS R. & KIMBERLY WHITFIELD | 9-12-4 | 54.02 |
| F | WNEK FAMILY IRREVOCABLE TR | 9-11-8 | 50.10 |
| G | GERALD W. QUIGLEY, ET AL | 9-12-2 | 139.79 |
| H | MYRTLE ELIZABETH GARTEN | 9-12-28 | 4.00 |
| I | GARY L. DOBBS | 9-12-37 | 20.00 |
| J | DAVID P. CHAPMAN | 9-12-32 | 150.00 |
| K | MYRTLE ELIZABETH GARTEN | 9-14-18 | 20.00 |
| L | SUSAN VAN DYNE | 9-15-3 | 167.00 |
| M | ROBERT FRANK KOYSON, ET AL | 9-15-4 | 26.40 |

| CURVE | ARC LENGTH | RADIUS | CHORD BEARING | CHORD LENGTH |
|-------|------------|----------|---------------|--------------|
| C1 | 125.55' | 113.21' | S 44°44' W | 119.21' |
| C2 | 270.07' | 648.72' | S 00°26' E | 267.30' |
| C3 | 389.15' | 7644.99' | S 19°58' E | 388.24' |
| C4 | 355.73' | 3708.21' | S 25°48' E | 355.59' |

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P.S.
677

Gregory A. Smith

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)

| | | |
|----------------------|--------------------|--------------------|
| NAD'83 S.P.C.(FT) | N. 476,126.48 | E. 1,636,786.50 |
| NAD'83 GEO. | LAT-(N) 39.8060706 | LONG-(W) 80.680787 |
| NAD'83 UTM (M) | N. 4,406,352.90 | E. 527,326.35 |
| LANDING POINT | | |
| NAD'83 S.P.C.(FT) | N. 476,919.9 | E. 1,636,007.9 |
| NAD'83 GEO. | LAT-(N) 39.803374 | LONG-(W) 80.683492 |
| NAD'83 UTM (M) | N. 4,405,981.9 | E. 527,094.3 |
| BOTTOM HOLE | | |
| NAD'83 S.P.C.(FT) | N. 468,429.3 | E. 1,640,722.5 |
| NAD'83 GEO. | LAT-(N) 39.780236 | LONG-(W) 80.686320 |
| NAD'83 UTM (M) | N. 4,403,419.2 | E. 526,573.9 |



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

SCALE 1" = 2000' FILE NO. 8655P5HMR.dwg

DATE AUGUST 10, 20 17

REVISED DECEMBER 19, 20 17

OPERATORS WELL NO. TEN HIGH 1S-5HM

API WELL NO. 47 — 051 — 01964MOD

STATE COUNTY PERMIT

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



LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL 00-00
- LEASE # (SEE PAGES 1,3,4,&5) (A)

COUNTY NAME PERMIT

03/09/2018

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

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

11,613' B.H.

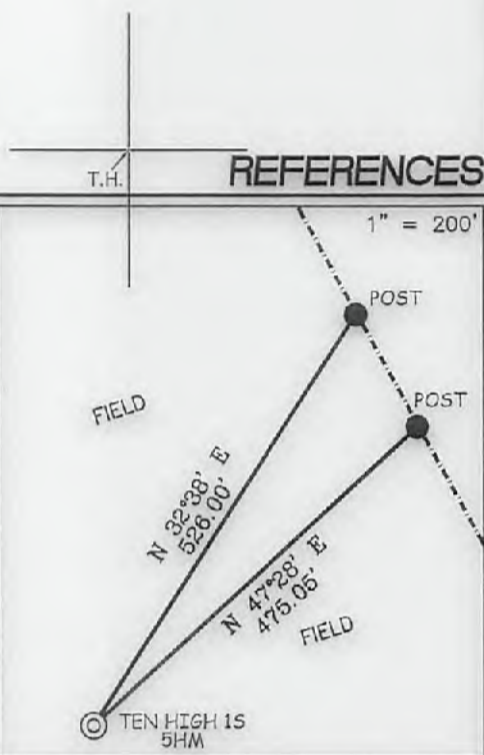
3,961' T.H.

TEN HIGH 1S LEASE
WELL 5HM
TUG HILL OPERATING

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

| (S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH) | | |
|--|-------------------|--------------------|
| NAD'83 S.P.C.(FT) | N. 478,123.48 | E. 1,636,789.50 |
| NAD'83 GEO. | LAT-(N) 39.806706 | LONG-(W) 80.680767 |
| NAD'83 UTM (M) | N. 4,408,352.60 | E. 527,326.85 |
| LANDING POINT | | |
| NAD'83 S.P.C.(FT) | N. 476,919.8 | E. 1,636,007.9 |
| NAD'83 GEO. | LAT-(N) 39.803374 | LONG-(W) 80.683492 |
| NAD'83 UTM (M) | N. 4,405,961.9 | E. 527,094.3 |
| BOTTOM HOLE | | |
| NAD'83 S.P.C.(FT) | N. 468,429.3 | E. 1,640,722.6 |
| NAD'83 GEO. | LAT-(N) 39.780236 | LONG-(W) 80.666320 |
| NAD'83 UTM (M) | N. 4,403,419.2 | E. 528,573.9 |

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°37'30"
4,164' B.H.
9,700' T.H.



NOTES ON SURVEY

1. 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.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'

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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. 677 Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE AUGUST 10, 20 17
REVISED DECEMBER 19, 20 17
OPERATORS WELL NO. TEN HIGH 1S-5HM
API WELL NO. 47 - 051 - 01964400
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8655P5HMR.dwg
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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

| | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|----------------------------------|-------------------------------|---|-------------------------------------|------------------------|--------------------------|-------------------------|--------------------------|------------------|--------------------------|----------------------|--------------------------|-------|--------------------------|
| WELL TYPE: | OIL <input type="checkbox"/> | GAS <input checked="" type="checkbox"/> | LIQUID INJECTION <input type="checkbox"/> | WASTE DISPOSAL <input type="checkbox"/> | IF "GAS" PRODUCTION <input checked="" type="checkbox"/> | STORAGE <input type="checkbox"/> | DEEP <input type="checkbox"/> | SHALLOW <input checked="" type="checkbox"/> | | | | | | | | | | | |
| LOCATION: | GROUND = 1,317.20' ELEVATION PROPOSED = 1,310.06' WATERSHED MIDDLE BOWMAN RUN OF FISH CREEK (HUC 10) | | | | | | | | | | | | | | | | | | |
| DISTRICT | MEADE | | COUNTY | MARSHALL | | QUADRANGLE | GLEN EASTON 7.5' | | | | | | | | | | | | |
| SURFACE OWNER | LAWRENCE & SHIRLEY CONKLE ESTS | | | | | ACREAGE | 139.79± | | | | | | | | | | | | |
| ROYALTY OWNER | ANDY PAUL & JACKIE KUHN, ET AL - SEE ABOVE AND SHEETS 3-5 | | | | | ACREAGE | 139.79± | | | | | | | | | | | | |
| PROPOSED WORK: | LEASE NO. <u>SEE ABOVE & SHEETS 03/09/2018</u> | | | | | | | | | | | | | | | | | | |
| DRILL | <input checked="" type="checkbox"/> | CONVERT | <input type="checkbox"/> | DRILL DEEPER | <input type="checkbox"/> | REDRILL | <input type="checkbox"/> | FRACTURE OR STIMULATE | <input checked="" type="checkbox"/> | PLUG OFF OLD FORMATION | <input type="checkbox"/> | PERFORATE NEW FORMATION | <input type="checkbox"/> | PLUG AND ABANDON | <input type="checkbox"/> | CLEAN OUT AND REPLUG | <input type="checkbox"/> | OTHER | <input type="checkbox"/> |
| PHYSICAL CHANGE IN WELL (SPECIFY) | | | | | | TARGET FORMATION | MARCELLUS | | | | | | | | | | | | |
| | | | | | | ESTIMATED DEPTH | TVD: 6,865' / TMD: 17,466' | | | | | | | | | | | | |

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

WW-6A1
(5/13)

Operator's Well No. Ten High 1S-5HM

**INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)**

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

- (1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
- (2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

| Lease Name or Number | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Book/Page |
|----------------------|-----------------------|-----------------------|---------|-----------|
|----------------------|-----------------------|-----------------------|---------|-----------|

*See attached pages

**Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas**

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Tug Hill Operating, LLC
 By: Amy L. Miller *Amy Miller*
 Its: Permit Specialist - Appalachia

SI-01964 MOD

WW-6A1 Supplement

Operator's Well No. Ten High 1S - 5HM

| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|----------|---|-----------------------|---------|------------------|------------|------------|-----------------------------|
| 10*15662 | A | 9-7-24 | LARRY LEE CONKLE | CHEVRON U.S.A. INC. | 1/8+ | 863 354 | N/A | N/A | Chevron to Tug Hill: 36/148 |
| 10*15663 | A | 9-7-24 | ROY A CONKLE SR | CHEVRON USA INC | 1/8+ | 863 311 | N/A | N/A | Chevron to Tug Hill: 36/148 |
| 10*15664 | A | 9-7-24 | THERESA ANNE HUGHES | CHEVRON USA INC | 1/8+ | 863 343 | N/A | N/A | Chevron to Tug Hill: 36/148 |
| 10*15666 | A | 9-7-24 | BRENDA J WHETZEL | CHEVRON USA INC | 1/8+ | 863 635 | N/A | N/A | Chevron to Tug Hill: 36/148 |
| 10*16049 | A | 9-7-24 | DANNY SHAWN KERNS AND AMY LYNN KERNS | TH EXPLORATION LLC | 1/8+ | 905 518 | N/A | N/A | N/A |
| 10*16138 | A | 9-7-24 | LARRY W KUHN AND VICKIE B KUHN, HUSBAND AND WIFE | TH EXPLORATION LLC | 1/8+ | 905 522 | N/A | N/A | N/A |
| 10*16139 | A | 9-7-24 | HUBERT DEAN KUHN AND ANDREA KUHN | TH EXPLORATION LLC | 1/8+ | 905 524 | N/A | N/A | N/A |
| 10*16140 | A | 9-7-24 | ANDY PAUL & JACKIE KUHN | TH EXPLORATION LLC | 1/8+ | 905 526 | N/A | N/A | N/A |
| 10*16141 | A | 9-7-24 | HOWARD L KUHN AND MARY L KUHN | TH EXPLORATION LLC | 1/8+ | 905 528 | N/A | N/A | N/A |
| 10*16501 | A | 9-7-24 | LLOYD DOYLE MOORE AND GWENDOLYN K MOORE | TH EXPLORATION LLC | 1/8+ | 907 392 | N/A | N/A | N/A |
| 10*16553 | A | 9-7-24 | MARK EDWARD AND KARRIE A GOODMAN | TH EXPLORATION LLC | 1/8+ | 909 81 | N/A | N/A | N/A |
| 10*16585 | A | 9-7-24 | DALE BRIAN GOODMAN | TH EXPLORATION LLC | 1/8+ | 909 505 | N/A | N/A | N/A |
| 10*16820 | A | 9-7-24 | ROBERTA ANN AND DAVID S GIBB | TH EXPLORATION LLC | 1/8+ | 919 237 | N/A | N/A | N/A |
| 10*17365 | A | 9-7-24 | MYSTI JOANNE GOODMAN | TH EXPLORATION LLC | 1/8+ | 927 468 | N/A | N/A | N/A |
| 10*17370 | A | 9-7-24 | KELLY JUNE GOODMAN | TH EXPLORATION LLC | 1/8+ | 927 470 | N/A | N/A | N/A |
| 10*18256 | A | 9-7-24 | JEFFREY STEPHEN GOODMAN | TH EXPLORATION LLC | 1/8+ | 929 1 | N/A | N/A | N/A |
| 10*47051.295.10 | A | 9-7-24 | DEENA J PALOMO | TH EXPLORATION LLC | 1/8+ | 905 470 | N/A | N/A | N/A |
| 10*47051.295.11 | A | 9-7-24 | REGINA D FIGUEROA AND DAVID FIGUEROA | TH EXPLORATION LLC | 1/8+ | 905 435 | N/A | N/A | N/A |
| 10*47051.295.12 | A | 9-7-24 | EARL D WELLMAN | TH EXPLORATION LLC | 1/8+ | 905 432 | N/A | N/A | N/A |
| 10*47051.295.13 | A | 9-7-24 | THE DOLLYE F WOOD REVOCABLE TRUST BY NICHOLAS CHARLES WOOD AS TRUSTEE | TH EXPLORATION LLC | 1/8+ | 904 641 | N/A | N/A | N/A |
| 10*47051.295.3 | A | 9-7-24 | HAZEL ARIZONA MOORE REYNOLDS | TH EXPLORATION LLC | 1/8+ | 904 632 | N/A | N/A | N/A |
| 10*47051.295.4 | A | 9-7-24 | LLOYD D MOORE | TH EXPLORATION LLC | 1/8+ | 904 459 | N/A | N/A | N/A |
| 10*47051.295.5 | A | 9-7-24 | DALE R MOORE | TH EXPLORATION LLC | 1/8+ | 904 635 | N/A | N/A | N/A |
| 10*47051.295.6 | A | 9-7-24 | MARY I BURKHART | TH EXPLORATION LLC | 1/8+ | 904 638 | N/A | N/A | N/A |
| 10*47051.295.7 | A | 9-7-24 | JEANNE V MELCHIORI | TH EXPLORATION LLC | 1/8+ | 904 462 | N/A | N/A | N/A |
| 10*47051.295.9 | A | 9-7-24 | JAMES E HIMELRICK JR AND KAREN HIMELRICK | TH EXPLORATION LLC | 1/8+ | 904 465 | N/A | N/A | N/A |
| 10*15746 | B | 9-7-23 | BRUCE D SCHURR | TH EXPLORATION LLC | 1/8+ | 921 478 | N/A | N/A | N/A |
| 10*16021 | B | 9-7-23 | TOMMY BONAR AND TANYA S BONAR | TH EXPLORATION LLC | 1/8+ | 925 325 | N/A | N/A | N/A |
| 10*16115 | B | 9-7-23 | EARL W HARRIS | TH EXPLORATION LLC | 1/8+ | 925 329 | N/A | N/A | N/A |
| 10*16247 | B | 9-7-23 | CAROL RIGGLE PARSLEY AND JAMES DENNIS PARSLEY | TH EXPLORATION LLC | 1/8+ | 925 327 | N/A | N/A | N/A |
| 10*17415 | B | 9-7-23 | DILLON PITSENBARGER | TH EXPLORATION LLC | 1/8+ | 919 241 | N/A | N/A | N/A |
| 10*17506 | B | 9-7-23 | CHASKIA F HARRIS AND JAMES M HARRIS | TH EXPLORATION LLC | 1/8+ | 919 239 | N/A | N/A | N/A |
| 10*17507 | B | 9-7-23 | DEZRAY METCALF | TH EXPLORATION LLC | 1/8+ | 919 235 | N/A | N/A | N/A |
| 10*47051.256.1 | B | 9-7-23 | BRENDA J WHETZEL | TH EXPLORATION LLC | 1/8+ | 881 145 | N/A | N/A | N/A |
| 10*47051.256.10 | B | 9-7-23 | GRACE LAURA BONAR | TH EXPLORATION LLC | 1/8+ | 905 35 | N/A | N/A | N/A |
| 10*47051.256.11 | B | 9-7-23 | JOHN L MASON | TH EXPLORATION LLC | 1/8+ | 905 37 | N/A | N/A | N/A |
| 10*47051.256.12 | B | 9-7-23 | STEVEN A BOHRER | TH EXPLORATION LLC | 1/8+ | 905 39 | N/A | N/A | N/A |
| 10*47051.256.13 | B | 9-7-23 | WILLIAM W CRAIG AND GLENDA L CRAIG | TH EXPLORATION LLC | 1/8+ | 905 41 | N/A | N/A | N/A |
| 10*47051.256.14 | B | 9-7-23 | HUGH R BUZZARD | TH EXPLORATION LLC | 1/8+ | 905 49 | N/A | N/A | N/A |
| 10*47051.256.15 | B | 9-7-23 | CHARLOTTE J BONAR YOHO | TH EXPLORATION LLC | 1/8+ | 904 455 | N/A | N/A | N/A |
| 10*47051.256.16 | B | 9-7-23 | CHARLOTTE B HUMMELL | TH EXPLORATION LLC | 1/8+ | 905 45 | N/A | N/A | N/A |
| 10*47051.256.17 | B | 9-7-23 | MAXINE G JOHNSON | TH EXPLORATION LLC | 1/8+ | 904 457 | N/A | N/A | N/A |
| 10*47051.256.18 | B | 9-7-23 | JOHN WILLIAM BONAR AND SHIRLEY BONAR | TH EXPLORATION LLC | 1/8+ | 913 522 | N/A | N/A | N/A |
| 10*47051.256.19 | B | 9-7-23 | MICHAEL DAVID PYLES AND CYNTHIA A PYLES | TH EXPLORATION LLC | 1/8+ | 907 207 | N/A | N/A | N/A |
| 10*47051.256.20 | B | 9-7-23 | JEFFREY THOMAS PYLES AND TERESA A PYLES | TH EXPLORATION LLC | 1/8+ | 907 209 | N/A | N/A | N/A |
| 10*47051.256.21 | B | 9-7-23 | JACK L MASON AND JEAN M MASON | TH EXPLORATION LLC | 1/8+ | 904 626 | N/A | N/A | N/A |
| 10*47051.256.22 | B | 9-7-23 | BEVERLY J HOPSON | TH EXPLORATION LLC | 1/8+ | 913 581 | N/A | N/A | N/A |
| 10*47051.256.23 | B | 9-7-23 | ROBERT L BONAR | TH EXPLORATION LLC | 1/8+ | 913 556 | N/A | N/A | N/A |
| 10*47051.256.24 | B | 9-7-23 | CATHERINE BONAR PETTIT BILLIE | TH EXPLORATION LLC | 1/8+ | 904 628 | N/A | N/A | N/A |
| 10*47051.256.7 | B | 9-7-23 | MARILYN SUE BUMER | TH EXPLORATION LLC | 1/8+ | 905 29 | N/A | N/A | N/A |
| 10*47051.256.8 | B | 9-7-23 | PAMELA ANN MASON | TH EXPLORATION LLC | 1/8+ | 905 31 | N/A | N/A | N/A |
| 10*47051.256.9 | B | 9-7-23 | WANDA MASON SUNSHINE | TH EXPLORATION LLC | 1/8+ | 905 33 | N/A | N/A | N/A |
| 10*15746 | C | 9-11-7.1 | BRUCE D SCHURR | TH EXPLORATION LLC | 1/8+ | 921 478 | N/A | N/A | N/A |
| 10*16021 | C | 9-11-7.1 | TOMMY BONAR AND TANYA S BONAR | TH EXPLORATION LLC | 1/8+ | 925 325 | N/A | N/A | N/A |
| 10*16115 | C | 9-11-7.1 | EARL W HARRIS | TH EXPLORATION LLC | 1/8+ | 925 329 | N/A | N/A | N/A |
| 10*16247 | C | 9-11-7.1 | CAROL RIGGLE PARSLEY AND JAMES DENNIS PARSLEY | TH EXPLORATION LLC | 1/8+ | 925 327 | N/A | N/A | N/A |

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Operator's Well No. Ten High 1S - 5HM

| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|----------|--|-----------------------|---------|------------------|------------|------------|------------|
| 10*17415 | C | 9-11-7.1 | DILLON PITSENBARGER | TH EXPLORATION LLC | 1/8+ | 919 241 | N/A | N/A | N/A |
| 10*17506 | C | 9-11-7.1 | CHASKA F HARRIS AND JAMES M HARRIS | TH EXPLORATION LLC | 1/8+ | 919 239 | N/A | N/A | N/A |
| 10*17507 | C | 9-11-7.1 | DEZRAY METCALF | TH EXPLORATION LLC | 1/8+ | 919 235 | N/A | N/A | N/A |
| 10*47051.256.1 | C | 9-11-7.1 | BRENDA J WHETZEL | TH EXPLORATION LLC | 1/8+ | 881 145 | N/A | N/A | N/A |
| 10*47051.256.10 | C | 9-11-7.1 | GRACE LAURA BONAR | TH EXPLORATION LLC | 1/8+ | 905 85 | N/A | N/A | N/A |
| 10*47051.256.11 | C | 9-11-7.1 | JOHN L MASON | TH EXPLORATION LLC | 1/8+ | 905 87 | N/A | N/A | N/A |
| 10*47051.256.12 | C | 9-11-7.1 | STEVEN A BOHRER | TH EXPLORATION LLC | 1/8+ | 905 39 | N/A | N/A | N/A |
| 10*47051.256.13 | C | 9-11-7.1 | WILLIAM W CRAIG AND GLENDA L CRAIG | TH EXPLORATION LLC | 1/8+ | 905 41 | N/A | N/A | N/A |
| 10*47051.256.14 | C | 9-11-7.1 | HUGH R BUZZARD | TH EXPLORATION LLC | 1/8+ | 905 43 | N/A | N/A | N/A |
| 10*47051.256.15 | C | 9-11-7.1 | CHARLOTTE J BONAR YOHO | TH EXPLORATION LLC | 1/8+ | 904 455 | N/A | N/A | N/A |
| 10*47051.256.16 | C | 9-11-7.1 | CHARLOTTE B HUMMELL | TH EXPLORATION LLC | 1/8+ | 905 45 | N/A | N/A | N/A |
| 10*47051.256.17 | C | 9-11-7.1 | MAXINE G JOHNSON | TH EXPLORATION LLC | 1/8+ | 904 457 | N/A | N/A | N/A |
| 10*47051.256.18 | C | 9-11-7.1 | JOHN WILLIAM BONAR AND SHIRLEY BONAR | TH EXPLORATION LLC | 1/8+ | 913 522 | N/A | N/A | N/A |
| 10*47051.256.19 | C | 9-11-7.1 | MICHAEL DAVID PYLES AND CYNTHIA A PYLES | TH EXPLORATION LLC | 1/8+ | 907 207 | N/A | N/A | N/A |
| 10*47051.256.20 | C | 9-11-7.1 | JEFFREY THOMAS PYLES AND TERESA A PYLES | TH EXPLORATION LLC | 1/8+ | 907 209 | N/A | N/A | N/A |
| 10*47051.256.21 | C | 9-11-7.1 | JACK L MASON AND JEAN M MASON | TH EXPLORATION LLC | 1/8+ | 904 626 | N/A | N/A | N/A |
| 10*47051.256.22 | C | 9-11-7.1 | BEVERLY J HOPSON | TH EXPLORATION LLC | 1/8+ | 913 581 | N/A | N/A | N/A |
| 10*47051.256.23 | C | 9-11-7.1 | ROBERT L BONAR | TH EXPLORATION LLC | 1/8+ | 913 556 | N/A | N/A | N/A |
| 10*47051.256.24 | C | 9-11-7.1 | CATHERINE BONAR PETTIT BILLIE | TH EXPLORATION LLC | 1/8+ | 904 628 | N/A | N/A | N/A |
| 10*47051.256.7 | C | 9-11-7.1 | MARILYN SUE BUMER | TH EXPLORATION LLC | 1/8+ | 905 29 | N/A | N/A | N/A |
| 10*47051.256.8 | C | 9-11-7.1 | PAMELA ANN MASON | TH EXPLORATION LLC | 1/8+ | 905 31 | N/A | N/A | N/A |
| 10*47051.256.9 | C | 9-11-7.1 | WANDA MASON SUNSHINE | TH EXPLORATION LLC | 1/8+ | 905 33 | N/A | N/A | N/A |
| 10*15481 | D | 9-7-25.2 | DEAN P RIGBY AND SUSAN RIGBY | TH EXPLORATION LLC | 1/8+ | 908 197 | N/A | N/A | N/A |
| 10*15482 | D | 9-7-25.2 | SUSAN NELSON | TH EXPLORATION LLC | 1/8+ | 908 203 | N/A | N/A | N/A |
| 10*15686 | D | 9-7-25.2 | JOHN OMER BOLTZ | TH EXPLORATION LLC | 1/8+ | 908 160 | N/A | N/A | N/A |
| 10*15750 | D | 9-7-25.2 | SANDRA K TRULL | TH EXPLORATION LLC | 1/8+ | 908 229 | N/A | N/A | N/A |
| 10*16058 | D | 9-7-25.2 | MATTIE RUTH JACKSON PRESCOTT | TH EXPLORATION LLC | 1/8+ | 908 231 | N/A | N/A | N/A |
| 10*16118 | D | 9-7-25.2 | RUBY RIDDLE JACKSON | TH EXPLORATION LLC | 1/8+ | 908 233 | N/A | N/A | N/A |
| 10*16297 | D | 9-7-25.2 | ROBERT A LEADBETTER AND M REBECCA LEADBETTER | TH EXPLORATION LLC | 1/8+ | 908 235 | N/A | N/A | N/A |
| 10*16298 | D | 9-7-25.2 | GEOFFREY A SHIEFER AND STEPHANIE L SCHIEFER | TH EXPLORATION LLC | 1/8+ | 908 238 | N/A | N/A | N/A |
| 10*16389 | D | 9-7-25.2 | ROBERT STEPHEN DRIGGERS | TH EXPLORATION LLC | 1/8+ | 908 224 | N/A | N/A | N/A |
| 10*16414 | D | 9-7-25.2 | MARY ELIZABETH DRIGGERS | TH EXPLORATION LLC | 1/8+ | 908 208 | N/A | N/A | N/A |
| 10*16415 | D | 9-7-25.2 | TERENCE J ANDERSON AND NANCY J ANDERSON | TH EXPLORATION LLC | 1/8+ | 908 213 | N/A | N/A | N/A |
| 10*16416 | D | 9-7-25.2 | CYNTHIA HUDSON | TH EXPLORATION LLC | 1/8+ | 908 319 | N/A | N/A | N/A |
| 10*16424 | D | 9-7-25.2 | ROBERT J RIGBY | TH EXPLORATION LLC | 1/8+ | 908 241 | N/A | N/A | N/A |
| 10*16448 | D | 9-7-25.2 | RALPH L AND JUANITA L CRIM | TH EXPLORATION LLC | 1/8+ | 908 584 | N/A | N/A | N/A |
| 10*16478 | D | 9-7-25.2 | MARION L AND EMILY CAMPBELL | TH EXPLORATION LLC | 1/8+ | 908 245 | N/A | N/A | N/A |
| 10*16514 | D | 9-7-25.2 | ALEX RUSSELL AND JOYCE A CAMPBELL | TH EXPLORATION LLC | 1/8+ | 908 248 | N/A | N/A | N/A |
| 10*16515 | D | 9-7-25.2 | ANNA MARIE JACKSON | TH EXPLORATION LLC | 1/8+ | 908 251 | N/A | N/A | N/A |
| 10*16516 | D | 9-7-25.2 | WILSON ANDREW JACKSON | TH EXPLORATION LLC | 1/8+ | 908 259 | N/A | N/A | N/A |
| 10*16545 | D | 9-7-25.2 | ROBERT G & ELLEN FOUNDS | TH EXPLORATION LLC | 1/8+ | 908 260 | N/A | N/A | N/A |
| 10*16662 | D | 9-7-25.2 | RICHARD THOMAS AND VICKI J MIMS | TH EXPLORATION LLC | 1/8+ | 908 863 | N/A | N/A | N/A |
| 10*16666 | D | 9-7-25.2 | MICHAEL P PYLE | TH EXPLORATION LLC | 1/8+ | 908 255 | N/A | N/A | N/A |
| 10*16667 | D | 9-7-25.2 | CHARLES F AND GAIL ANN PYLE | TH EXPLORATION LLC | 1/8+ | 908 266 | N/A | N/A | N/A |
| 10*16668 | D | 9-7-25.2 | JACK I AND MERRILEE PYLE | TH EXPLORATION LLC | 1/8+ | 908 257 | N/A | N/A | N/A |
| 10*16669 | D | 9-7-25.2 | JOHN S AND PATRICIA S DADO | TH EXPLORATION LLC | 1/8+ | 908 269 | N/A | N/A | N/A |
| 10*16686 | D | 9-7-25.2 | CHERYLE M TRACEY | TH EXPLORATION LLC | 1/8+ | 908 269 | N/A | N/A | N/A |
| 10*16688 | D | 9-7-25.2 | SHERRYL PYLE BAIR | TH EXPLORATION LLC | 1/8+ | 927 475 | N/A | N/A | N/A |
| 10*16689 | D | 9-7-25.2 | JOHN C FOUNDS | TH EXPLORATION LLC | 1/8+ | 927 481 | N/A | N/A | N/A |
| 10*16690 | D | 9-7-25.2 | RICARDO ORTIZ | TH EXPLORATION LLC | 1/8+ | 927 478 | N/A | N/A | N/A |
| 10*16720 | D | 9-7-25.2 | DONNA ELAINE BRASKETT | TH EXPLORATION LLC | 1/8+ | 921 352 | N/A | N/A | N/A |
| 10*16738 | D | 9-7-25.2 | CHARLES A RINE AND RUTH K RINE | TH EXPLORATION LLC | 1/8+ | 921 152 | N/A | N/A | N/A |
| 10*16742 | D | 9-7-25.2 | PAUL C WILSON | TH EXPLORATION LLC | 1/8+ | 927 490 | N/A | N/A | N/A |
| 10*16747 | D | 9-7-25.2 | WILLIAM DALE BRASKETT | TH EXPLORATION LLC | 1/8+ | 921 96 | N/A | N/A | N/A |
| 10*16787 | D | 9-7-25.2 | HERBERT BRIAN AND DONNA DRU CAMPBELL | TH EXPLORATION LLC | 1/8+ | 921 364 | N/A | N/A | N/A |
| 10*16798 | D | 9-7-25.2 | PATRICK A RANKIN AND ROBIN A RANKIN | TH EXPLORATION LLC | 1/8+ | 921 364 | N/A | N/A | N/A |

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Operator's Well No. Ten High 1S - 5HM

| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|----------|--|-----------------------|---------|------------------|------------|------------|------------|
| 10*16800 | D | 9-7-25.2 | JAMES KENNETH JACKSON AND JULIE JACKSON | TH EXPLORATION LLC | 1/8+ | 921 93 | N/A | N/A | N/A |
| 10*16802 | D | 9-7-25.2 | CHRISTOPHER AND TAMMY RICHARDSON | TH EXPLORATION LLC | 1/8+ | 921 495 | N/A | N/A | N/A |
| 10*16804 | D | 9-7-25.2 | WILLIAM N AND SHERRY D TAYLOR | TH EXPLORATION LLC | 1/8+ | 921 510 | N/A | N/A | N/A |
| 10*16806 | D | 9-7-25.2 | VIRGINIA I WHITTMAN | TH EXPLORATION LLC | 1/8+ | 921 528 | N/A | N/A | N/A |
| 10*16807 | D | 9-7-25.2 | DAVID TULLER AND SUSAN STORTS TULLER | TH EXPLORATION LLC | 1/8+ | 921 513 | N/A | N/A | N/A |
| 10*16808 | D | 9-7-25.2 | MICHAEL L ORTIZ | TH EXPLORATION LLC | 1/8+ | 921 349 | N/A | N/A | N/A |
| 10*16815 | D | 9-7-25.2 | HAROLD W PYLE | TH EXPLORATION LLC | 1/8+ | 921 357 | N/A | N/A | N/A |
| 10*16819 | D | 9-7-25.2 | TERESA ORTIZ BIGGS | TH EXPLORATION LLC | 1/8+ | 921 147 | N/A | N/A | N/A |
| 10*16821 | D | 9-7-25.2 | SHEILA BRASKETT WEICHEY | TH EXPLORATION LLC | 1/8+ | 921 516 | N/A | N/A | N/A |
| 10*16836 | D | 9-7-25.2 | RICK A AND LENORE A STORTS | TH EXPLORATION LLC | 1/8+ | 921 507 | N/A | N/A | N/A |
| 10*16837 | D | 9-7-25.2 | TERRY L AND THELMA A POFF | TH EXPLORATION LLC | 1/8+ | 927 472 | N/A | N/A | N/A |
| 10*16838 | D | 9-7-25.2 | ROBERT G FUNARI | TH EXPLORATION LLC | 1/8+ | 921 82 | N/A | N/A | N/A |
| 10*16839 | D | 9-7-25.2 | JAMES B FOUNDS AND LYNN M MOWERY | TH EXPLORATION LLC | 1/8+ | 921 73 | N/A | N/A | N/A |
| 10*16863 | D | 9-7-25.2 | TINA MOORE | TH EXPLORATION LLC | 1/8+ | 921 334 | N/A | N/A | N/A |
| 10*16868 | D | 9-7-25.2 | MICHAEL W STORTS AND JESSICA M STORTS | TH EXPLORATION LLC | 1/8+ | 921 504 | N/A | N/A | N/A |
| 10*16879 | D | 9-7-25.2 | MARK E AND LESLEY A STORTS | TH EXPLORATION LLC | 1/8+ | 921 501 | N/A | N/A | N/A |
| 10*16880 | D | 9-7-25.2 | BEVERLY ANN STORTS | TH EXPLORATION LLC | 1/8+ | 921 498 | N/A | N/A | N/A |
| 10*16902 | D | 9-7-25.2 | MARY BARCAW DUKE | TH EXPLORATION LLC | 1/8+ | 921 105 | N/A | N/A | N/A |
| 10*16962 | D | 9-7-25.2 | DENNIS P AND BARBARA EZELL FLORY | TH EXPLORATION LLC | 1/8+ | 921 70 | N/A | N/A | N/A |
| 10*16976 | D | 9-7-25.2 | LESTER G AND CONSTANCE B NICKOLSON | TH EXPLORATION LLC | 1/8+ | 921 343 | N/A | N/A | N/A |
| 10*16977 | D | 9-7-25.2 | JEREMY COCHENOUR | TH EXPLORATION LLC | 1/8+ | 921 102 | N/A | N/A | N/A |
| 10*16987 | D | 9-7-25.2 | LAURIE EZELL PERRY | TH EXPLORATION LLC | 1/8+ | 921 355 | N/A | N/A | N/A |
| 10*16989 | D | 9-7-25.2 | BRITTANY RICHARDSON | TH EXPLORATION LLC | 1/8+ | 921 375 | N/A | N/A | N/A |
| 10*16991 | D | 9-7-25.2 | MARYELLEN FOUNDS AND LAUREN FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 79 | N/A | N/A | N/A |
| 10*16996 | D | 9-7-25.2 | THOMAS RANKIN | TH EXPLORATION LLC | 1/8+ | 917 75 | N/A | N/A | N/A |
| 10*17130 | D | 9-7-25.2 | CINDY L BARGER | TH EXPLORATION LLC | 1/8+ | 921 137 | N/A | N/A | N/A |
| 10*17155 | D | 9-7-25.2 | JESSE LEON JR AND TERESA GAIL EZELLE | TH EXPLORATION LLC | 1/8+ | 921 118 | N/A | N/A | N/A |
| 10*17156 | D | 9-7-25.2 | HENRI NELL JACKSON KENT BARNES | TH EXPLORATION LLC | 1/8+ | 921 139 | N/A | N/A | N/A |
| 10*17157 | D | 9-7-25.2 | JAMES N REEVES JR AND RITA M REEVES | TH EXPLORATION LLC | 1/8+ | 921 367 | N/A | N/A | N/A |
| 10*17198 | D | 9-7-25.2 | THOMAS G AND DIANE W BAYLESS | TH EXPLORATION LLC | 1/8+ | 921 141 | N/A | N/A | N/A |
| 10*17205 | D | 9-7-25.2 | SANDRA JEAN WILSON | TH EXPLORATION LLC | 1/8+ | 921 524 | N/A | N/A | N/A |
| 10*17208 | D | 9-7-25.2 | PATRICK S GALLAGHER AND JOYCE ANN FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 86 | N/A | N/A | N/A |
| 10*17274 | D | 9-7-25.2 | DAVID H WILSON | TH EXPLORATION LLC | 1/8+ | 921 474 | N/A | N/A | N/A |
| 10*17275 | D | 9-7-25.2 | JOHN R REEVES AND MONA G REEVES | TH EXPLORATION LLC | 1/8+ | 921 373 | N/A | N/A | N/A |
| 10*17276 | D | 9-7-25.2 | BERTHA EZELL WYATT | TH EXPLORATION LLC | 1/8+ | 921 526 | N/A | N/A | N/A |
| 10*17278 | D | 9-7-25.2 | MICHAEL L EZELLE | TH EXPLORATION LLC | 1/8+ | 921 121 | N/A | N/A | N/A |
| 10*17339 | D | 9-7-25.2 | JOSEPH W FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 76 | N/A | N/A | N/A |
| 10*17377 | D | 9-7-25.2 | MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE | TH EXPLORATION LLC | 1/8+ | 921 123 | N/A | N/A | N/A |
| 10*17416 | D | 9-7-25.2 | ANDREW M ORTIZ | TH EXPLORATION LLC | 1/8+ | 921 346 | N/A | N/A | N/A |
| 10*17438 | D | 9-7-25.2 | DENNIS M WILSON | TH EXPLORATION LLC | 1/8+ | 921 476 | N/A | N/A | N/A |
| 10*17440 | D | 9-7-25.2 | KENDRA WALUSA | TH EXPLORATION LLC | 1/8+ | 927 484 | N/A | N/A | N/A |
| 10*17441 | D | 9-7-25.2 | RALPH J WILSON | TH EXPLORATION LLC | 1/8+ | 921 522 | N/A | N/A | N/A |
| 10*17442 | D | 9-7-25.2 | SHANE ALLEN AND MENDY JEAN ALLEN | TH EXPLORATION LLC | 1/8+ | 921 134 | N/A | N/A | N/A |
| 10*17443 | D | 9-7-25.2 | MICHELLE MORROW-BACK | TH EXPLORATION LLC | 1/8+ | 921 337 | N/A | N/A | N/A |
| 10*17444 | D | 9-7-25.2 | KELLY FOUNDS CAMPBELL | TH EXPLORATION LLC | 1/8+ | 921 99 | N/A | N/A | N/A |
| 10*17449 | D | 9-7-25.2 | PHYLLIS J BLAKE | TH EXPLORATION LLC | 1/8+ | 921 150 | N/A | N/A | N/A |
| 10*17482 | D | 9-7-25.2 | TERESA EZELLE RALYA AND DAVID L RALYA | TH EXPLORATION LLC | 1/8+ | 927 487 | N/A | N/A | N/A |
| 10*17483 | D | 9-7-25.2 | RICHARD I PYLE | TH EXPLORATION LLC | 1/8+ | 921 359 | N/A | N/A | N/A |
| 10*17484 | D | 9-7-25.2 | NELDA S JACKSON | TH EXPLORATION LLC | 1/8+ | 921 330 | N/A | N/A | N/A |
| 10*17485 | D | 9-7-25.2 | MARGIE ANN JACKSON ROBBINS GRAHAM | TH EXPLORATION LLC | 1/8+ | 921 91 | N/A | N/A | N/A |
| 10*17526 | D | 9-7-25.2 | JEFFREY L REEVES AND JODY L REEVES | TH EXPLORATION LLC | 1/8+ | 921 370 | N/A | N/A | N/A |
| 10*17527 | D | 9-7-25.2 | JAMES MICHAEL EZELL AND LUCILLE D EZELL | TH EXPLORATION LLC | 1/8+ | 921 111 | N/A | N/A | N/A |
| 10*17552 | D | 9-7-25.2 | JOHN BEVAQUA AND PATRICIA A BEVAQUA | TH EXPLORATION LLC | 1/8+ | 921 144 | N/A | N/A | N/A |
| 10*17554 | D | 9-7-25.2 | MICHAEL T RANKIN | TH EXPLORATION LLC | 1/8+ | 921 361 | N/A | N/A | N/A |
| 10*17561 | D | 9-7-25.2 | ROGER L TYRELL AND KATHRYN L TYRELL | TH EXPLORATION LLC | 1/8+ | 921 519 | N/A | N/A | N/A |
| 10*17564 | D | 9-7-25.2 | JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON | TH EXPLORATION LLC | 1/8+ | 921 340 | N/A | N/A | N/A |

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| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|----------|--|-----------------------|---------|------------------|------------|------------|------------|
| 10*17565 | D | 9-7-25.2 | JESSE ALLEN JACKSON AND ELIZABETH D JACKSON | TH EXPLORATION LLC | 1/8+ | 921 327 | N/A | N/A | N/A |
| 10*17566 | D | 9-7-25.2 | NATHAN P ERDOSSY AND BARBARA T ERDOSSY | TH EXPLORATION LLC | 1/8+ | 921 108 | N/A | N/A | N/A |
| 10*17588 | D | 9-7-25.2 | JAMES M JACKSON | TH EXPLORATION LLC | 1/8+ | 921 325 | N/A | N/A | N/A |
| 10*17589 | D | 9-7-25.2 | MARY CHRISTINE MCKENNA | TH EXPLORATION LLC | 1/8+ | 921 332 | N/A | N/A | N/A |
| 10*17677 | D | 9-7-25.2 | GEORGE M GONTA JR | TH EXPLORATION LLC | 1/8+ | 921 89 | N/A | N/A | N/A |
| 10*17744 | D | 9-7-25.2 | SAM PRESLEY EZELL | TH EXPLORATION LLC | 1/8+ | 921 116 | N/A | N/A | N/A |
| 10*18021 | D | 9-7-25.2 | CHRISTOPHER & JACKIE MANIFAN | TH EXPLORATION, LLC | 1/8+ | 927 267 | N/A | N/A | N/A |
| 10*18022 | D | 9-7-25.2 | DALE P & CYNTHIA J WARD | TH EXPLORATION, LLC | 1/8+ | 927 264 | N/A | N/A | N/A |
| 10*47051.223.12 | D | 9-7-25.2 | ALICE GORBY MARTIN | TH EXPLORATION LLC | 1/8+ | 908 52 | N/A | N/A | N/A |
| 10*47051.223.13 | D | 9-7-25.2 | JAMES A GORBY | TH EXPLORATION LLC | 1/8+ | 908 42 | N/A | N/A | N/A |
| 10*47051.223.15 | D | 9-7-25.2 | LARRY D TAUNT AND NANCY L TAUNT | TH EXPLORATION LLC | 1/8+ | 908 14 | N/A | N/A | N/A |
| 10*47051.223.20 | D | 9-7-25.2 | BARBARA A BUZZARD | TH EXPLORATION LLC | 1/8+ | 908 24 | N/A | N/A | N/A |
| 10*47051.223.21 | D | 9-7-25.2 | GARY T WARD AND SHARON D WARD | TH EXPLORATION LLC | 1/8+ | 908 19 | N/A | N/A | N/A |
| 10*47051.223.30 | D | 9-7-25.2 | LAURIE DRIGGERS MANDERSON | TH EXPLORATION LLC | 1/8+ | 908 165 | N/A | N/A | N/A |
| 10*47051.223.33 | D | 9-7-25.2 | NANCY CIAFFAGLIONE HOUSLEY | TH EXPLORATION LLC | 1/8+ | 908 185 | N/A | N/A | N/A |
| 10*47051.223.35 | D | 9-7-25.2 | DEBRA L CIAFFAGLIONE | TH EXPLORATION LLC | 1/8+ | 908 190 | N/A | N/A | N/A |
| 10*47051.223.6 | D | 9-7-25.2 | JOSHUA RINE AND REBECCA RINE | TH EXPLORATION LLC | 1/8+ | 907 634 | N/A | N/A | N/A |
| 10*47051.223.9 | D | 9-7-25.2 | LINDA DELBERT | TH EXPLORATION LLC | 1/8+ | 908 32 | N/A | N/A | N/A |
| 10*47051.303.1 | D | 9-7-25.2 | THOMAS R WHITFIELD | TH EXPLORATION LLC | 1/8+ | 890 401 | N/A | N/A | N/A |
| 10*47051.303.2 | D | 9-7-25.2 | KIMBERLY A WHITFIELD | TH EXPLORATION LLC | 1/8+ | 890 408 | N/A | N/A | N/A |
| 10*15481 | E | 9-12-4 | DEAN P RIGBY AND SUSAN RIGBY | TH EXPLORATION LLC | 1/8+ | 908 157 | N/A | N/A | N/A |
| 10*15482 | E | 9-12-4 | SUSAN NELSON | TH EXPLORATION LLC | 1/8+ | 908 203 | N/A | N/A | N/A |
| 10*15686 | E | 9-12-4 | JOHN OMER BOLTZ | TH EXPLORATION LLC | 1/8+ | 908 160 | N/A | N/A | N/A |
| 10*15750 | E | 9-12-4 | SANDRA K TRULL | TH EXPLORATION LLC | 1/8+ | 908 229 | N/A | N/A | N/A |
| 10*16058 | E | 9-12-4 | MATTIE RUTH JACKSON PRESCOTT | TH EXPLORATION LLC | 1/8+ | 908 231 | N/A | N/A | N/A |
| 10*16118 | E | 9-12-4 | RUBY RIDDLE JACKSON | TH EXPLORATION LLC | 1/8+ | 908 233 | N/A | N/A | N/A |
| 10*16297 | E | 9-12-4 | ROBERT A LEADBETTER AND M REBECCA LEADBETTER | TH EXPLORATION LLC | 1/8+ | 908 235 | N/A | N/A | N/A |
| 10*16298 | E | 9-12-4 | GEOFFREY A SHIEFER AND STEPHANIE L SCHIEFER | TH EXPLORATION LLC | 1/8+ | 908 238 | N/A | N/A | N/A |
| 10*16383 | E | 9-12-4 | ROBERT STEPHEN DRIGGERS | TH EXPLORATION LLC | 1/8+ | 908 224 | N/A | N/A | N/A |
| 10*16414 | E | 9-12-4 | MARY ELIZABETH DRIGGERS | TH EXPLORATION LLC | 1/8+ | 908 208 | N/A | N/A | N/A |
| 10*16415 | E | 9-12-4 | TERENCE J ANDERSON AND NANCY J ANDERSON | TH EXPLORATION LLC | 1/8+ | 908 213 | N/A | N/A | N/A |
| 10*16416 | E | 9-12-4 | CYNTHIA HUDSON | TH EXPLORATION LLC | 1/8+ | 908 219 | N/A | N/A | N/A |
| 10*16424 | E | 9-12-4 | ROBERT J RIGBY | TH EXPLORATION LLC | 1/8+ | 908 241 | N/A | N/A | N/A |
| 10*16448 | E | 9-12-4 | RALPH L AND JUANITA L CRIM | TH EXPLORATION LLC | 1/8+ | 908 584 | N/A | N/A | N/A |
| 10*16478 | E | 9-12-4 | MARION L AND EMILY CAMPBELL | TH EXPLORATION LLC | 1/8+ | 908 245 | N/A | N/A | N/A |
| 10*16514 | E | 9-12-4 | ALEX RUSSELL AND JOYCE A CAMPBELL | TH EXPLORATION LLC | 1/8+ | 908 248 | N/A | N/A | N/A |
| 10*16515 | E | 9-12-4 | ANNA MARIE JACKSON | TH EXPLORATION LLC | 1/8+ | 908 251 | N/A | N/A | N/A |
| 10*16516 | E | 9-12-4 | WILSON ANDREW JACKSON | TH EXPLORATION LLC | 1/8+ | 908 253 | N/A | N/A | N/A |
| 10*16545 | E | 9-12-4 | ROBERT G & ELLEN FOUNDS | TH EXPLORATION LLC | 1/8+ | 908 260 | N/A | N/A | N/A |
| 10*16662 | E | 9-12-4 | RICHARD THOMAS AND VICKI J MIMS | TH EXPLORATION LLC | 1/8+ | 908 863 | N/A | N/A | N/A |
| 10*16666 | E | 9-12-4 | MICHAEL P PYLE | TH EXPLORATION LLC | 1/8+ | 908 255 | N/A | N/A | N/A |
| 10*16667 | E | 9-12-4 | CHARLES F AND GAIL ANN PYLE | TH EXPLORATION LLC | 1/8+ | 908 266 | N/A | N/A | N/A |
| 10*16668 | E | 9-12-4 | JACK I AND MERRILEE PYLE | TH EXPLORATION LLC | 1/8+ | 908 257 | N/A | N/A | N/A |
| 10*16669 | E | 9-12-4 | JOHN S AND PATRICIA S DADO | TH EXPLORATION LLC | 1/8+ | 908 269 | N/A | N/A | N/A |
| 10*16686 | E | 9-12-4 | CHERYLE M TRACEY | TH EXPLORATION LLC | 1/8+ | 927 475 | N/A | N/A | N/A |
| 10*16688 | E | 9-12-4 | SHERRYL PYLE BAIR | TH EXPLORATION LLC | 1/8+ | 927 481 | N/A | N/A | N/A |
| 10*16689 | E | 9-12-4 | JOHN C FOUNDS | TH EXPLORATION LLC | 1/8+ | 927 478 | N/A | N/A | N/A |
| 10*16690 | E | 9-12-4 | RICARDO ORTIZ | TH EXPLORATION LLC | 1/8+ | 921 352 | N/A | N/A | N/A |
| 10*16720 | E | 9-12-4 | DONNA ELAINE BRASKETT | TH EXPLORATION LLC | 1/8+ | 921 152 | N/A | N/A | N/A |
| 10*16798 | E | 9-12-4 | CHARLES A RINE AND RUTH K RINE | TH EXPLORATION LLC | 1/8+ | 908 274 | N/A | N/A | N/A |
| 10*16742 | E | 9-12-4 | PAUL C WILSON | TH EXPLORATION LLC | 1/8+ | 924 490 | N/A | N/A | N/A |
| 10*16747 | E | 9-12-4 | WILLIAM DALE BRASKETT | TH EXPLORATION LLC | 1/8+ | 921 96 | N/A | N/A | N/A |
| 10*16798 | E | 9-12-4 | PATRICK A RANKIN AND ROBIN A RANKIN | TH EXPLORATION LLC | 1/8+ | 921 364 | N/A | N/A | N/A |
| 10*16800 | E | 9-12-4 | JAMES KENNETH JACKSON AND JULIE JACKSON | TH EXPLORATION LLC | 1/8+ | 921 93 | N/A | N/A | N/A |
| 10*16802 | E | 9-12-4 | CHRISTOPHER AND TAMMY RICHARDSON | TH EXPLORATION LLC | 1/8+ | 921 495 | N/A | N/A | N/A |
| 10*16804 | E | 9-12-4 | WILLIAM N AND SHERRY D TAYLOR | TH EXPLORATION LLC | 1/8+ | 921 510 | N/A | N/A | N/A |

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|------------------|-----|--------|--|-----------------------|---------|------------------|------------|------------|------------|
| 10*16806 | E | 9-12-4 | VIRGINIA I WHITMAN | TH EXPLORATION LLC | 1/8+ | 921 528 | N/A | N/A | N/A |
| 10*16807 | E | 9-12-4 | DAVID TULLER AND SUSAN STORTS TULLER | TH EXPLORATION LLC | 1/8+ | 921 513 | N/A | N/A | N/A |
| 10*16808 | E | 9-12-4 | MICHAEL L ORTIZ | TH EXPLORATION LLC | 1/8+ | 921 349 | N/A | N/A | N/A |
| 10*16815 | E | 9-12-4 | HAROLD W PYLE | TH EXPLORATION LLC | 1/8+ | 921 357 | N/A | N/A | N/A |
| 10*16819 | E | 9-12-4 | TERESA ORTIZ BIGGS | TH EXPLORATION LLC | 1/8+ | 921 147 | N/A | N/A | N/A |
| 10*16821 | E | 9-12-4 | SHEILA BRASKETT WEICHEY | TH EXPLORATION LLC | 1/8+ | 921 516 | N/A | N/A | N/A |
| 10*16836 | E | 9-12-4 | RICK A AND LENORE A STORTS | TH EXPLORATION LLC | 1/8+ | 921 507 | N/A | N/A | N/A |
| 10*16837 | E | 9-12-4 | TERRY L AND THELMA A POFF | TH EXPLORATION LLC | 1/8+ | 927 472 | N/A | N/A | N/A |
| 10*16838 | E | 9-12-4 | ROBERT G FUNARI | TH EXPLORATION LLC | 1/8+ | 921 82 | N/A | N/A | N/A |
| 10*16839 | E | 9-12-4 | JAMES B FOUNDS AND LYNN M MOWERY | TH EXPLORATION LLC | 1/8+ | 921 73 | N/A | N/A | N/A |
| 10*16863 | E | 9-12-4 | TINA MOORE | TH EXPLORATION LLC | 1/8+ | 921 334 | N/A | N/A | N/A |
| 10*16868 | E | 9-12-4 | MICHAEL W STORTS AND JESSICA M STORTS | TH EXPLORATION LLC | 1/8+ | 921 504 | N/A | N/A | N/A |
| 10*16879 | E | 9-12-4 | MARK E AND LESLEY A STORTS | TH EXPLORATION LLC | 1/8+ | 921 501 | N/A | N/A | N/A |
| 10*16880 | E | 9-12-4 | BEVERLY ANN STORTS | TH EXPLORATION LLC | 1/8+ | 921 498 | N/A | N/A | N/A |
| 10*16902 | E | 9-12-4 | MARY BARCAW DUKE | TH EXPLORATION LLC | 1/8+ | 921 105 | N/A | N/A | N/A |
| 10*16962 | E | 9-12-4 | DENNIS P AND BARBARA EZELL FLORY | TH EXPLORATION LLC | 1/8+ | 921 70 | N/A | N/A | N/A |
| 10*16976 | E | 9-12-4 | LESTER G AND CONSTANCE B NICKOLSON | TH EXPLORATION LLC | 1/8+ | 921 343 | N/A | N/A | N/A |
| 10*16977 | E | 9-12-4 | JEREMY COCHENOUR | TH EXPLORATION LLC | 1/8+ | 921 102 | N/A | N/A | N/A |
| 10*16987 | E | 9-12-4 | LAURIE EZELL PERRY | TH EXPLORATION LLC | 1/8+ | 921 355 | N/A | N/A | N/A |
| 10*16989 | E | 9-12-4 | BRITTANY RICHARDSON | TH EXPLORATION LLC | 1/8+ | 916 135 | N/A | N/A | N/A |
| 10*16991 | E | 9-12-4 | MARYELLEN FOUNDS AND LAUREN FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 79 | N/A | N/A | N/A |
| 10*16996 | E | 9-12-4 | THOMAS RANKIN | TH EXPLORATION LLC | 1/8+ | 927 75 | N/A | N/A | N/A |
| 10*17130 | E | 9-12-4 | CINDY L BARGER | TH EXPLORATION LLC | 1/8+ | 921 137 | N/A | N/A | N/A |
| 10*17155 | E | 9-12-4 | JESSE LEON JR AND TERESA GAIL EZELLE | TH EXPLORATION LLC | 1/8+ | 921 118 | N/A | N/A | N/A |
| 10*17156 | E | 9-12-4 | HENRI NELL JACKSON KENT BARNES | TH EXPLORATION LLC | 1/8+ | 921 139 | N/A | N/A | N/A |
| 10*17157 | E | 9-12-4 | JAMES N REEVES JR AND RITA M REEVES | TH EXPLORATION LLC | 1/8+ | 921 367 | N/A | N/A | N/A |
| 10*17198 | E | 9-12-4 | THOMAS G AND DIANE W BAYLESS | TH EXPLORATION LLC | 1/8+ | 921 141 | N/A | N/A | N/A |
| 10*17205 | E | 9-12-4 | SANDRA JEAN WILSON | TH EXPLORATION LLC | 1/8+ | 921 524 | N/A | N/A | N/A |
| 10*17208 | E | 9-12-4 | PATRICK S GALLAGHER AND JOYCE ANN FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 86 | N/A | N/A | N/A |
| 10*17274 | E | 9-12-4 | DAVID H WILSON | TH EXPLORATION LLC | 1/8+ | 921 474 | N/A | N/A | N/A |
| 10*17275 | E | 9-12-4 | JOHN R REEVES AND MONA G REEVES | TH EXPLORATION LLC | 1/8+ | 921 373 | N/A | N/A | N/A |
| 10*17276 | E | 9-12-4 | BERTHA EZELL WYATT | TH EXPLORATION LLC | 1/8+ | 921 526 | N/A | N/A | N/A |
| 10*17278 | E | 9-12-4 | MICHAEL L EZELLE | TH EXPLORATION LLC | 1/8+ | 921 121 | N/A | N/A | N/A |
| 10*17339 | E | 9-12-4 | JOSEPH W FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 76 | N/A | N/A | N/A |
| 10*17377 | E | 9-12-4 | MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE | TH EXPLORATION LLC | 1/8+ | 921 123 | N/A | N/A | N/A |
| 10*17416 | E | 9-12-4 | ANDREW M ORTIZ | TH EXPLORATION LLC | 1/8+ | 921 346 | N/A | N/A | N/A |
| 10*17438 | E | 9-12-4 | DENNIS M WILSON | TH EXPLORATION LLC | 1/8+ | 921 476 | N/A | N/A | N/A |
| 10*17440 | E | 9-12-4 | KENDRA WALLISA | TH EXPLORATION LLC | 1/8+ | 927 484 | N/A | N/A | N/A |
| 10*17441 | E | 9-12-4 | RALPH J WILSON | TH EXPLORATION LLC | 1/8+ | 921 522 | N/A | N/A | N/A |
| 10*17442 | E | 9-12-4 | SHANE ALLEN AND MENDY JEAN ALLEN | TH EXPLORATION LLC | 1/8+ | 921 134 | N/A | N/A | N/A |
| 10*17443 | E | 9-12-4 | MICHELLE MORROW-BACK | TH EXPLORATION LLC | 1/8+ | 921 337 | N/A | N/A | N/A |
| 10*17444 | E | 9-12-4 | KELLY FOUNDS CAMPBELL | TH EXPLORATION LLC | 1/8+ | 921 99 | N/A | N/A | N/A |
| 10*17449 | E | 9-12-4 | PHYLLIS J BLAKE | TH EXPLORATION LLC | 1/8+ | 921 150 | N/A | N/A | N/A |
| 10*17482 | E | 9-12-4 | TERESA EZELLE RALYA AND DAVID L RALYA | TH EXPLORATION LLC | 1/8+ | 927 497 | N/A | N/A | N/A |
| 10*17483 | E | 9-12-4 | RICHARD I PYLE | TH EXPLORATION LLC | 1/8+ | 921 859 | N/A | N/A | N/A |
| 10*17484 | E | 9-12-4 | NELDA S JACKSON | TH EXPLORATION LLC | 1/8+ | 921 390 | N/A | N/A | N/A |
| 10*17485 | E | 9-12-4 | MARGIE ANN JACKSON ROBBINS GRAHAM | TH EXPLORATION LLC | 1/8+ | 921 91 | N/A | N/A | N/A |
| 10*17526 | E | 9-12-4 | JEFFREY L REEVES AND JODY L REEVES | TH EXPLORATION LLC | 1/8+ | 921 370 | N/A | N/A | N/A |
| 10*17527 | E | 9-12-4 | JAMES MICHAEL EZELL AND LUCILLE D EZELL | TH EXPLORATION LLC | 1/8+ | 921 111 | N/A | N/A | N/A |
| 10*17552 | E | 9-12-4 | JOHN BEVACQUA AND PATRICIA A BEVACQUA | TH EXPLORATION LLC | 1/8+ | 921 144 | N/A | N/A | N/A |
| 10*17554 | E | 9-12-4 | MICHAEL T RANKIN | TH EXPLORATION LLC | 1/8+ | 921 361 | N/A | N/A | N/A |
| 10*17561 | E | 9-12-4 | ROGER L TYRELL AND KATHRYN L TYRELL | TH EXPLORATION LLC | 1/8+ | 921 519 | N/A | N/A | N/A |
| 10*17564 | E | 9-12-4 | JAMES RONALD NICKOLSON AND TRACEY E NICKOLSON | TH EXPLORATION LLC | 1/8+ | 921 340 | N/A | N/A | N/A |
| 10*17565 | E | 9-12-4 | JESSE ALLEN JACKSON AND ELIZABETH D JACKSON | TH EXPLORATION LLC | 1/8+ | 921 327 | N/A | N/A | N/A |
| 10*17566 | E | 9-12-4 | NATHAN P ERDOSSY AND BARBARA T ERDOSSY | TH EXPLORATION LLC | 1/8+ | 921 108 | N/A | N/A | N/A |
| 10*17588 | E | 9-12-4 | JAMES M JACKSON | TH EXPLORATION LLC | 1/8+ | 921 325 | N/A | N/A | N/A |

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|------------------|-----|--------|--|-----------------------|---------|------------------|------------|------------|------------|
| 10*17589 | E | 9-12-4 | MARY CHRISTINE MCKENNA | TH EXPLORATION LLC | 1/8+ | 921 | 892 | N/A | N/A |
| 10*17677 | E | 9-12-4 | GEORGE M GONTA JR | TH EXPLORATION LLC | 1/8+ | 921 | 89 | N/A | N/A |
| 10*17744 | E | 9-12-4 | SAM PRESLEY EZELL | TH EXPLORATION LLC | 1/8+ | 921 | 116 | N/A | N/A |
| 10*18021 | E | 9-12-4 | CHRISTOPHER & JACKIE HANIFAN | TH EXPLORATION, LLC | 1/8+ | 927 | 267 | N/A | N/A |
| 10*18022 | E | 9-12-4 | DALE P & CYNTHIA J WARD | TH EXPLORATION, LLC | 1/8+ | 927 | 264 | N/A | N/A |
| 10*47051.223.1 | E | 9-12-4 | JEAN ANNE GORBY STORCH | TH EXPLORATION LLC | 1/8+ | 877 | 216 | N/A | N/A |
| 10*47051.223.10 | E | 9-12-4 | ROBERT E GORBY | TH EXPLORATION LLC | 1/8+ | 908 | 47 | N/A | N/A |
| 10*47051.223.11 | E | 9-12-4 | ELIZABETH ESTEP | TH EXPLORATION LLC | 1/8+ | 908 | 37 | N/A | N/A |
| 10*47051.223.12 | E | 9-12-4 | ALICE GORBY MARTIN | TH EXPLORATION LLC | 1/8+ | 908 | 52 | N/A | N/A |
| 10*47051.223.13 | E | 9-12-4 | JAMES A GORBY | TH EXPLORATION LLC | 1/8+ | 908 | 42 | N/A | N/A |
| 10*47051.223.14 | E | 9-12-4 | JUSTIN RINE AND BECKY RINE | TH EXPLORATION LLC | 1/8+ | 907 | 639 | N/A | N/A |
| 10*47051.223.15 | E | 9-12-4 | LARRY D TAUNT AND NANCY L TAUNT | TH EXPLORATION LLC | 1/8+ | 908 | 14 | N/A | N/A |
| 10*47051.223.16 | E | 9-12-4 | BETTY LOU STERN AND WILLIAM KEITH STERN | TH EXPLORATION LLC | 1/8+ | 908 | 64 | N/A | N/A |
| 10*47051.223.17 | E | 9-12-4 | RALPH E HUNTER JR AND CHARLOTTE HUNTER | TH EXPLORATION LLC | 1/8+ | 908 | 9 | N/A | N/A |
| 10*47051.223.18 | E | 9-12-4 | BRITTNEY MENEAR | TH EXPLORATION LLC | 1/8+ | 908 | 57 | N/A | N/A |
| 10*47051.223.19 | E | 9-12-4 | JASON RINE AND HEATHER RINE | TH EXPLORATION LLC | 1/8+ | 907 | 629 | N/A | N/A |
| 10*47051.223.20 | E | 9-12-4 | BARBARA A BUZZARD | TH EXPLORATION LLC | 1/8+ | 908 | 24 | N/A | N/A |
| 10*47051.223.21 | E | 9-12-4 | GARY T WARD AND SHARON D WARD | TH EXPLORATION LLC | 1/8+ | 908 | 19 | N/A | N/A |
| 10*47051.223.22 | E | 9-12-4 | SALLY COLE | TH EXPLORATION LLC | 1/8+ | 908 | 74 | N/A | N/A |
| 10*47051.223.23 | E | 9-12-4 | RONALD S CRIM | TH EXPLORATION LLC | 1/8+ | 908 | 79 | N/A | N/A |
| 10*47051.223.24 | E | 9-12-4 | JO DEE K DAVIS | TH EXPLORATION LLC | 1/8+ | 908 | 136 | N/A | N/A |
| 10*47051.223.25 | E | 9-12-4 | JOANNE WELCH | TH EXPLORATION LLC | 1/8+ | 908 | 141 | N/A | N/A |
| 10*47051.223.26 | E | 9-12-4 | WENDY L SMARKEL | TH EXPLORATION LLC | 1/8+ | 908 | 69 | N/A | N/A |
| 10*47051.223.27 | E | 9-12-4 | TIMI J HOBBS | TH EXPLORATION LLC | 1/8+ | 908 | 277 | N/A | N/A |
| 10*47051.223.28 | E | 9-12-4 | KAREN S GAST | TH EXPLORATION LLC | 1/8+ | 908 | 150 | N/A | N/A |
| 10*47051.223.29 | E | 9-12-4 | PATSY JO RAJU | TH EXPLORATION LLC | 1/8+ | 908 | 155 | N/A | N/A |
| 10*47051.223.30 | E | 9-12-4 | LAURIE DRIGGERS MANDERSON | TH EXPLORATION LLC | 1/8+ | 908 | 165 | N/A | N/A |
| 10*47051.223.31 | E | 9-12-4 | JANICE M GONTA GAVALIK | TH EXPLORATION LLC | 1/8+ | 908 | 160 | N/A | N/A |
| 10*47051.223.32 | E | 9-12-4 | JOSEPH GORBY DAKAN | TH EXPLORATION LLC | 1/8+ | 908 | 175 | N/A | N/A |
| 10*47051.223.33 | E | 9-12-4 | NANCY CIAFFAGLIONE HOUSLEY | TH EXPLORATION LLC | 1/8+ | 908 | 185 | N/A | N/A |
| 10*47051.223.34 | E | 9-12-4 | JOHN CIAFFAGLIONE | TH EXPLORATION LLC | 1/8+ | 927 | 267 | N/A | N/A |
| 10*47051.223.35 | E | 9-12-4 | DEBRA L CIAFFAGLIONE | TH EXPLORATION LLC | 1/8+ | 927 | 264 | N/A | N/A |
| 10*47051.223.5 | E | 9-12-4 | HAROLD S BROWN II AND MARIA A BROWN | TH EXPLORATION LLC | 1/8+ | 907 | 641 | N/A | N/A |
| 10*47051.223.6 | E | 9-12-4 | JOSHUA RINE AND REBECCA RINE | TH EXPLORATION LLC | 1/8+ | 907 | 694 | N/A | N/A |
| 10*47051.223.7 | E | 9-12-4 | JACK R WILSON JR AND JANE A WILSON | TH EXPLORATION LLC | 1/8+ | 908 | 4 | N/A | N/A |
| 10*47051.223.8 | E | 9-12-4 | DAVID M WILSON | TH EXPLORATION LLC | 1/8+ | 907 | 649 | N/A | N/A |
| 10*47051.223.9 | E | 9-12-4 | UNDA DELBERT | TH EXPLORATION LLC | 1/8+ | 908 | 92 | N/A | N/A |
| 10*15463 | F | 9-11-8 | CHARLES A RINE | TH EXPLORATION LLC | 1/8+ | 908 | 274 | N/A | N/A |
| 10*15481 | F | 9-11-8 | DEAN P RIGBY AND SUSAN RIGBY | TH EXPLORATION LLC | 1/8+ | 908 | 197 | N/A | N/A |
| 10*15482 | F | 9-11-8 | SUSAN NELSON | TH EXPLORATION LLC | 1/8+ | 908 | 203 | N/A | N/A |
| 10*15686 | F | 9-11-8 | JOHN OMER BOLTZ | TH EXPLORATION LLC | 1/8+ | 908 | 160 | N/A | N/A |
| 10*15750 | F | 9-11-8 | SANDRA K TRULL | TH EXPLORATION LLC | 1/8+ | 908 | 229 | N/A | N/A |
| 10*16058 | F | 9-11-8 | MATTIE RUTH JACKSON PRESCOTT | TH EXPLORATION LLC | 1/8+ | 908 | 231 | N/A | N/A |
| 10*16118 | F | 9-11-8 | RUBY RIDDLE JACKSON | TH EXPLORATION LLC | 1/8+ | 908 | 233 | N/A | N/A |
| 10*16297 | F | 9-11-8 | ROBERT A LEADBETTER AND M REBECCA LEADBETTER | TH EXPLORATION LLC | 1/8+ | 908 | 235 | N/A | N/A |
| 10*16298 | F | 9-11-8 | GEOFFREY A SHIEFER AND STEPHANIE L SCHIEFER | TH EXPLORATION LLC | 1/8+ | 908 | 238 | N/A | N/A |
| 10*16383 | F | 9-11-8 | ROBERT STEPHEN DRIGGERS | TH EXPLORATION LLC | 1/8+ | 908 | 224 | N/A | N/A |
| 10*16414 | F | 9-11-8 | MARY ELIZABETH DRIGGERS | TH EXPLORATION, LCC | 1/8+ | 908 | 208 | N/A | N/A |
| 10*16415 | F | 9-11-8 | TERENCE J & NANCY J ANDERSON | TH EXPLORATION, LCC | 1/8+ | 908 | 213 | N/A | N/A |
| 10*16416 | F | 9-11-8 | CYNTHIA HUDSON | TH EXPLORATION, LCC | 1/8+ | 908 | 219 | N/A | N/A |
| 10*16424 | F | 9-11-8 | ROBERT J RIGBY | TH EXPLORATION, LLC | 1/8+ | 908 | 241 | N/A | N/A |
| 10*16448 | F | 9-11-8 | RALPH L AND JUANITA L CRIM | TH EXPLORATION LLC | 1/8+ | 908 | 584 | N/A | N/A |
| 10*16478 | F | 9-11-8 | MARION L AND EMILY CAMPBELL | TH EXPLORATION LLC | 1/8+ | 908 | 245 | N/A | N/A |
| 10*16514 | F | 9-11-8 | ALEX RUSSELL AND JOYCE A CAMPBELL | TH EXPLORATION LLC | 1/8+ | 908 | 248 | N/A | N/A |
| 10*16515 | F | 9-11-8 | ANNA MARIE JACKSON | TH EXPLORATION LLC | 1/8+ | 908 | 251 | N/A | N/A |
| 10*16516 | F | 9-11-8 | WILSON ANDREW JACKSON | TH EXPLORATION LLC | 1/8+ | 908 | 253 | N/A | N/A |

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| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|--------|--|-----------------------|---------|------------------|------------|------------|------------|
| 10*16545 | F | 9-11-8 | ROBERT G & ELLEN FOUNDS | TH EXPLORATION LLC | 1/8+ | 908 260 | N/A | N/A | N/A |
| 10*16662 | F | 9-11-8 | RICHARD THOMAS AND VICKI J MIMS | TH EXPLORATION LLC | 1/8+ | 908 863 | N/A | N/A | N/A |
| 10*16666 | F | 9-11-8 | MICHAEL P PYLE | TH EXPLORATION LLC | 1/8+ | 908 255 | N/A | N/A | N/A |
| 10*16667 | F | 9-11-8 | CHARLES F AND GAIL ANN PYLE | TH EXPLORATION LLC | 1/8+ | 908 266 | N/A | N/A | N/A |
| 10*16668 | F | 9-11-8 | JACK I AND MERRILEE PYLE | TH EXPLORATION LLC | 1/8+ | 908 257 | N/A | N/A | N/A |
| 10*16669 | F | 9-11-8 | JOHN S AND PATRICIA S DADO | TH EXPLORATION LLC | 1/8+ | 908 269 | N/A | N/A | N/A |
| 10*16686 | F | 9-11-8 | CHERYLE M TRACEY | TH EXPLORATION LLC | 1/8+ | 927 475 | N/A | N/A | N/A |
| 10*16688 | F | 9-11-8 | SHERRYL PYLE BAIR | TH EXPLORATION LLC | 1/8+ | 927 481 | N/A | N/A | N/A |
| 10*16689 | F | 9-11-8 | JOHN C FOUNDS | TH EXPLORATION LLC | 1/8+ | 927 478 | N/A | N/A | N/A |
| 10*16690 | F | 9-11-8 | RICARDO ORTIZ | TH EXPLORATION LLC | 1/8+ | 921 352 | N/A | N/A | N/A |
| 10*16720 | F | 9-11-8 | DONNA ELAINE BRASKETT | TH EXPLORATION LLC | 1/8+ | 921 152 | N/A | N/A | N/A |
| 10*16742 | F | 9-11-8 | PAUL C WILSON | TH EXPLORATION LLC | 1/8+ | 927 490 | N/A | N/A | N/A |
| 10*16747 | F | 9-11-8 | WILLIAM DALE BRASKETT | TH EXPLORATION LLC | 1/8+ | 921 96 | N/A | N/A | N/A |
| 10*16798 | F | 9-11-8 | PATRICK A RANKIN AND ROBIN A RANKIN | TH EXPLORATION LLC | 1/8+ | 921 364 | N/A | N/A | N/A |
| 10*16800 | F | 9-11-8 | JAMES KENNETH JACKSON AND JULIE JACKSON | TH EXPLORATION LLC | 1/8+ | 921 93 | N/A | N/A | N/A |
| 10*16802 | F | 9-11-8 | CHRISTOPHER AND TAMMY RICHARDSON | TH EXPLORATION LLC | 1/8+ | 921 495 | N/A | N/A | N/A |
| 10*16804 | F | 9-11-8 | WILLIAM N AND SHERRY D TAYLOR | TH EXPLORATION LLC | 1/8+ | 921 510 | N/A | N/A | N/A |
| 10*16805 | F | 9-11-8 | VIRGINIA I WHITMAN | TH EXPLORATION LLC | 1/8+ | 921 528 | N/A | N/A | N/A |
| 10*16807 | F | 9-11-8 | DAVID TULLER AND SUSAN STORTS TULLER | TH EXPLORATION LLC | 1/8+ | 921 513 | N/A | N/A | N/A |
| 10*16808 | F | 9-11-8 | MICHAEL L ORTIZ | TH EXPLORATION LLC | 1/8+ | 921 349 | N/A | N/A | N/A |
| 10*16815 | F | 9-11-8 | HAROLD W PYLE | TH EXPLORATION LLC | 1/8+ | 921 357 | N/A | N/A | N/A |
| 10*16819 | F | 9-11-8 | TERESA ORTIZ BIGGS | TH EXPLORATION LLC | 1/8+ | 921 147 | N/A | N/A | N/A |
| 10*16821 | F | 9-11-8 | SHEILA BRASKETT WEICHEY | TH EXPLORATION LLC | 1/8+ | 921 516 | N/A | N/A | N/A |
| 10*16836 | F | 9-11-8 | RICK A AND LENORE A STORTS | TH EXPLORATION LLC | 1/8+ | 921 507 | N/A | N/A | N/A |
| 10*16837 | F | 9-11-8 | TERRY L AND THELMA A POFF | TH EXPLORATION LLC | 1/8+ | 927 472 | N/A | N/A | N/A |
| 10*16838 | F | 9-11-8 | ROBERT G FUNARI | TH EXPLORATION LLC | 1/8+ | 921 82 | N/A | N/A | N/A |
| 10*16839 | F | 9-11-8 | JAMES B FOUNDS AND LYNN M MOWERY | TH EXPLORATION LLC | 1/8+ | 921 73 | N/A | N/A | N/A |
| 10*16863 | F | 9-11-8 | TINA MOORE | TH EXPLORATION LLC | 1/8+ | 921 334 | N/A | N/A | N/A |
| 10*16868 | F | 9-11-8 | MICHAEL W STORTS AND JESSICA M STORTS | TH EXPLORATION LLC | 1/8+ | 921 504 | N/A | N/A | N/A |
| 10*16879 | F | 9-11-8 | MARK E AND LESLEY A STORTS | TH EXPLORATION LLC | 1/8+ | 921 501 | N/A | N/A | N/A |
| 10*16880 | F | 9-11-8 | BEVERLY ANN STORTS | TH EXPLORATION LLC | 1/8+ | 921 498 | N/A | N/A | N/A |
| 10*16902 | F | 9-11-8 | MARY BARCAW DUKE | TH EXPLORATION LLC | 1/8+ | 921 105 | N/A | N/A | N/A |
| 10*16962 | F | 9-11-8 | DENNIS P AND BARBARA EZELL FLORY | TH EXPLORATION LLC | 1/8+ | 921 70 | N/A | N/A | N/A |
| 10*16976 | F | 9-11-8 | LESTER G AND CONSTANCE B NICKOLSON | TH EXPLORATION LLC | 1/8+ | 921 343 | N/A | N/A | N/A |
| 10*16977 | F | 9-11-8 | JEREMY COCHENOUR | TH EXPLORATION LLC | 1/8+ | 921 102 | N/A | N/A | N/A |
| 10*16987 | F | 9-11-8 | LAURIE EZELL PERRY | TH EXPLORATION LLC | 1/8+ | 921 355 | N/A | N/A | N/A |
| 10*16989 | F | 9-11-8 | BRITTANY RICHARDSON | TH EXPLORATION LLC | 1/8+ | 921 376 | N/A | N/A | N/A |
| 10*16991 | F | 9-11-8 | MARYELLEN FOUNDS AND LAUREN FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 79 | N/A | N/A | N/A |
| 10*16996 | F | 9-11-8 | THOMAS RANKIN | TH EXPLORATION LLC | 1/8+ | 917 75 | N/A | N/A | N/A |
| 10*17130 | F | 9-11-8 | CINDY L BARGER | TH EXPLORATION LLC | 1/8+ | 921 137 | N/A | N/A | N/A |
| 10*17155 | F | 9-11-8 | JESSE LEON JR AND TERESA GAIL EZELLE | TH EXPLORATION LLC | 1/8+ | 921 118 | N/A | N/A | N/A |
| 10*17156 | F | 9-11-8 | HENRI NELL JACKSON KENT BARNES | TH EXPLORATION LLC | 1/8+ | 921 139 | N/A | N/A | N/A |
| 10*17157 | F | 9-11-8 | JAMES N REEVES JR AND RITA M REEVES | TH EXPLORATION LLC | 1/8+ | 921 367 | N/A | N/A | N/A |
| 10*17198 | F | 9-11-8 | THOMAS G AND DIANE W BAYLESS | TH EXPLORATION LLC | 1/8+ | 921 141 | N/A | N/A | N/A |
| 10*17205 | F | 9-11-8 | SANDRA JEAN WILSON | TH EXPLORATION LLC | 1/8+ | 921 524 | N/A | N/A | N/A |
| 10*17208 | F | 9-11-8 | PATRICK S GALLAGHER AND JOYCE ANN FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 86 | N/A | N/A | N/A |
| 10*17274 | F | 9-11-8 | DAVID H WILSON | TH EXPLORATION LLC | 1/8+ | 921 474 | N/A | N/A | N/A |
| 10*17275 | F | 9-11-8 | JOHN R REEVES AND MONA G REEVES | TH EXPLORATION LLC | 1/8+ | 921 373 | N/A | N/A | N/A |
| 10*17276 | F | 9-11-8 | BERTHA EZELL WYATT | TH EXPLORATION LLC | 1/8+ | 921 526 | N/A | N/A | N/A |
| 10*17278 | F | 9-11-8 | MICHAEL L EZELLE | TH EXPLORATION LLC | 1/8+ | 921 121 | N/A | N/A | N/A |
| 10*17399 | F | 9-11-8 | JOSEPH W FOUNDS | TH EXPLORATION LLC | 1/8+ | 921 76 | N/A | N/A | N/A |
| 10*17377 | F | 9-11-8 | MILTON HOWARD EZELLE JR AND ELIZABETH A EZELLE | TH EXPLORATION LLC | 1/8+ | 921 123 | N/A | N/A | N/A |
| 10*17416 | F | 9-11-8 | ANDREW M. ORTIZ | TH EXPLORATION, LLC | 1/8+ | 921 346 | N/A | N/A | N/A |
| 10*17438 | F | 9-11-8 | DENNIS M WILSON | TH EXPLORATION LLC | 1/8+ | 921 476 | N/A | N/A | N/A |
| 10*17440 | F | 9-11-8 | KENDRA WALISA | TH EXPLORATION LLC | 1/8+ | 927 484 | N/A | N/A | N/A |
| 10*17441 | F | 9-11-8 | RALPH J WILSON | TH EXPLORATION LLC | 1/8+ | 921 522 | N/A | N/A | N/A |

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Operator's Well No. Ten High 1S - 5HM

| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|--------|---|---------------------------|---------|------------------|------------|-------------------------------|-----------------------------|
| 10*17442 | F | 9-11-8 | SHANE ALLEN AND MENDY JEAN ALLEN | TH EXPLORATION LLC | 1/8+ | 921 194 | N/A | N/A | N/A |
| 10*17443 | F | 9-11-8 | MICHELLE MORROW-BACK | TH EXPLORATION LLC | 1/8+ | 921 337 | N/A | N/A | N/A |
| 10*17444 | F | 9-11-8 | KELLY FOUNDS CAMPBELL | TH EXPLORATION LLC | 1/8+ | 921 99 | N/A | N/A | N/A |
| 10*17449 | F | 9-11-8 | PHYLLIS J BLAKE | TH EXPLORATION LLC | 1/8+ | 921 150 | N/A | N/A | N/A |
| 10*17482 | F | 9-11-8 | TERESA EZELLE RALYA AND DAVID L RALYA | TH EXPLORATION LLC | 1/8+ | 927 487 | N/A | N/A | N/A |
| 10*17483 | F | 9-11-8 | RICHARD I PYLE | TH EXPLORATION LLC | 1/8+ | 921 959 | N/A | N/A | N/A |
| 10*17484 | F | 9-11-8 | NELDA S JACKSON | TH EXPLORATION LLC | 1/8+ | 921 330 | N/A | N/A | N/A |
| 10*17485 | F | 9-11-8 | MARGIE ANN JACKSON ROBBINS GRAHAM | TH EXPLORATION LLC | 1/8+ | 921 81 | N/A | N/A | N/A |
| 10*17526 | F | 9-11-8 | JEFFREY L REEVES AND JODY L REEVES | TH EXPLORATION LLC | 1/8+ | 921 370 | N/A | N/A | N/A |
| 10*17527 | F | 9-11-8 | JAMES MICHAEL EZELL AND LUCILLE D EZELL | TH EXPLORATION LLC | 1/8+ | 921 111 | N/A | N/A | N/A |
| 10*17552 | F | 9-11-8 | JOHN BEVACQUA AND PATRICIA A BEVACQUA | TH EXPLORATION LLC | 1/8+ | 921 144 | N/A | N/A | N/A |
| 10*17554 | F | 9-11-8 | MICHAEL T RANKIN | TH EXPLORATION LLC | 1/8+ | 921 361 | N/A | N/A | N/A |
| 10*17561 | F | 9-11-8 | KATHRYN L & ROGER L TYRELL | TH EXPLORATION, LLC | 1/8+ | 921 519 | N/A | N/A | N/A |
| 10*17564 | F | 9-11-8 | JAMES R & TRACEY E NICKOLSON | TH EXPLORATION, LLC | 1/8+ | 921 940 | N/A | N/A | N/A |
| 10*17565 | F | 9-11-8 | JESSE ALLEN JACKSON AND ELIZABETH D JACKSON | TH EXPLORATION LLC | 1/8+ | 921 327 | N/A | N/A | N/A |
| 10*17566 | F | 9-11-8 | NATHAN P & BARBARA T ERDOSSY | TH EXPLORATION, LLC | 1/8+ | 921 108 | N/A | N/A | N/A |
| 10*17588 | F | 9-11-8 | JAMES M JACKSON | TH EXPLORATION LLC | 1/8+ | 921 325 | N/A | N/A | N/A |
| 10*17589 | F | 9-11-8 | MARY CHRISTINE MCKENNA | TH EXPLORATION, LLC | 1/8+ | 921 332 | N/A | N/A | N/A |
| 10*17677 | F | 9-11-8 | GEORGE M GONTA JR | TH EXPLORATION, LLC | 1/8+ | 921 89 | N/A | N/A | N/A |
| 10*17744 | F | 9-11-8 | SAM PRESLEY EZELL | TH EXPLORATION LLC | 1/8+ | 921 116 | N/A | N/A | N/A |
| 10*47051.223.1 | F | 9-11-8 | JEAN ANNE GORBY STORCH | TH EXPLORATION LLC | 1/8+ | 927 216 | N/A | N/A | N/A |
| 10*47051.223.10 | F | 9-11-8 | ROBERT E GORBY | TH EXPLORATION LLC | 1/8+ | 908 47 | N/A | N/A | N/A |
| 10*47051.223.11 | F | 9-11-8 | ELIZABETH ESTEP | TH EXPLORATION LLC | 1/8+ | 908 39 | N/A | N/A | N/A |
| 10*47051.223.12 | F | 9-11-8 | ALICE GORBY MARTIN | TH EXPLORATION LLC | 1/8+ | 908 52 | N/A | N/A | N/A |
| 10*47051.223.13 | F | 9-11-8 | JAMES A GORBY | TH EXPLORATION LLC | 1/8+ | 908 42 | N/A | N/A | N/A |
| 10*47051.223.14 | F | 9-11-8 | JUSTIN RINE AND BECKY RINE | TH EXPLORATION LLC | 1/8+ | 907 639 | N/A | N/A | N/A |
| 10*47051.223.15 | F | 9-11-8 | LARRY D TAUNT AND NANCY L TAUNT | TH EXPLORATION LLC | 1/8+ | 908 14 | N/A | N/A | N/A |
| 10*47051.223.16 | F | 9-11-8 | BETTY LOU STERN AND WILLIAM KEITH STERN | TH EXPLORATION LLC | 1/8+ | 908 64 | N/A | N/A | N/A |
| 10*47051.223.17 | F | 9-11-8 | RALPH E HUNTER JR AND CHARLOTTE HUNTER | TH EXPLORATION LLC | 1/8+ | 908 9 | N/A | N/A | N/A |
| 10*47051.223.18 | F | 9-11-8 | BRITTNEY MENEAR | TH EXPLORATION LLC | 1/8+ | 908 57 | N/A | N/A | N/A |
| 10*47051.223.19 | F | 9-11-8 | JASON RINE AND HEATHER RINE | TH EXPLORATION LLC | 1/8+ | 907 629 | N/A | N/A | N/A |
| 10*47051.223.20 | F | 9-11-8 | BARBARA A BUZZARD | TH EXPLORATION LLC | 1/8+ | 908 24 | N/A | N/A | N/A |
| 10*47051.223.21 | F | 9-11-8 | GARY T WARD AND SHARON D WARD | TH EXPLORATION LLC | 1/8+ | 908 19 | N/A | N/A | N/A |
| 10*47051.223.22 | F | 9-11-8 | SALLY COLE | TH EXPLORATION LLC | 1/8+ | 908 74 | N/A | N/A | N/A |
| 10*47051.223.23 | F | 9-11-8 | RONALD S CRIM | TH EXPLORATION LLC | 1/8+ | 908 81 | N/A | N/A | N/A |
| 10*47051.223.24 | F | 9-11-8 | JO DEE K DAVIS | TH EXPLORATION LLC | 1/8+ | 908 136 | N/A | N/A | N/A |
| 10*47051.223.25 | F | 9-11-8 | JOANNE WELCH | TH EXPLORATION LLC | 1/8+ | 908 141 | N/A | N/A | N/A |
| 10*47051.223.26 | F | 9-11-8 | WENDY L SMARKEL | TH EXPLORATION LLC | 1/8+ | 908 69 | N/A | N/A | N/A |
| 10*47051.223.27 | F | 9-11-8 | TIMI J HOBBS | TH EXPLORATION LLC | 1/8+ | 908 277 | N/A | N/A | N/A |
| 10*47051.223.28 | F | 9-11-8 | KAREN S GAST | TH EXPLORATION LLC | 1/8+ | 908 150 | N/A | N/A | N/A |
| 10*47051.223.29 | F | 9-11-8 | PATSY JO RAIU | TH EXPLORATION LLC | 1/8+ | 908 155 | N/A | N/A | N/A |
| 10*47051.223.30 | F | 9-11-8 | LAURIE DRIGGERS MANDERSON | TH EXPLORATION LLC | 1/8+ | 908 165 | N/A | N/A | N/A |
| 10*47051.223.31 | F | 9-11-8 | JANICE M GONTA GAVALUK | TH EXPLORATION LLC | 1/8+ | 908 180 | N/A | N/A | N/A |
| 10*47051.223.32 | F | 9-11-8 | JOSEPH GORBY DAKAN | TH EXPLORATION LLC | 1/8+ | 908 175 | N/A | N/A | N/A |
| 10*47051.223.33 | F | 9-11-8 | NANCY CIAFFAGLIONE HOUSLEY | TH EXPLORATION LLC | 1/8+ | 908 185 | N/A | N/A | N/A |
| 10*47051.223.34 | F | 9-11-8 | JOHN CIAFFAGLIONE | TH EXPLORATION LLC | 1/8+ | 908 170 | N/A | N/A | N/A |
| 10*47051.223.35 | F | 9-11-8 | DEBRA L CIAFFAGLIONE | TH EXPLORATION LLC | 1/8+ | 908 192 | N/A | N/A | N/A |
| 10*47051.223.5 | F | 9-11-8 | HAROLD S BROWN II AND MARIA A BROWN | TH EXPLORATION LLC | 1/8+ | 907 641 | N/A | N/A | N/A |
| 10*47051.223.6 | F | 9-11-8 | JOSHUA RINE AND REBECCA RINE | TH EXPLORATION LLC | 1/8+ | 907 634 | N/A | N/A | N/A |
| 10*47051.223.7 | F | 9-11-8 | JACK R WILSON JR AND JANE A WILSON | TH EXPLORATION LLC | 1/8+ | 908 4 | N/A | N/A | N/A |
| 10*47051.223.8 | F | 9-11-8 | DAVID M WILSON | TH EXPLORATION LLC | 1/8+ | 907 649 | N/A | N/A | N/A |
| 10*47051.223.9 | F | 9-11-8 | LINDA DELBERT | TH EXPLORATION LLC | 1/8+ | 908 32 | N/A | N/A | N/A |
| 10*15606 | G | 9-12-2 | CHK-MAC LLC | CHESAPEAKE APPALACHIA LLC | 1/8+ | 798 150 | N/A | Chesapeake to Chevron: 30/461 | Chevron to Tug Hill: 36/148 |
| 10*16145 | G | 9-12-2 | CHARLES STEVEN JOHNSON AND SHIRLEY LOUISE JOHNSON | TH EXPLORATION LLC | 1/8+ | 924 612 | N/A | N/A | N/A |
| 10*16298 | G | 9-12-2 | SUSAN MARIE JOHNSON AKA SUSAN MARIE HUBER | TH EXPLORATION LLC | 1/8+ | 924 614 | N/A | N/A | N/A |
| 10*16932 | G | 9-12-2 | HAYMAKER PROPERTIES LP | CHEVRON U.S.A. INC. | 1/8+ | 902 447 | N/A | N/A | Chevron to Tug Hill: 37/437 |

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Operator's Well No. Ten High 1S - 5HM

| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|---------|---|-----------------------|---------|------------------|------------|------------|-----------------------------|
| 10*47051.309.1 | G | 9-12-2 | LESLIE E QUIGLEY | TH EXPLORATION LLC | 1/8+ | 905 8 | N/A | N/A | N/A |
| 10*47051.309.2 | G | 9-12-2 | LEWIS M QUIGLEY AND MAXINE V QUIGLEY | TH EXPLORATION LLC | 1/8+ | 907 217 | N/A | N/A | N/A |
| 10*47051.309.3 | G | 9-12-2 | GERALD W QUIGLEY AND VICKI L QUIGLEY | TH EXPLORATION LLC | 1/8+ | 905 12 | N/A | N/A | N/A |
| 10*16145 | H | 9-12-28 | CHARLES STEVEN JOHNSON AND SHIRLEY LOUISE JOHNSON | TH EXPLORATION LLC | 1/8+ | 924 612 | N/A | N/A | N/A |
| 10*16238 | H | 9-12-28 | SUSAN MARIE JOHNSON AKA SUSAN MARIE HUBER | TH EXPLORATION LLC | 1/8+ | 924 614 | N/A | N/A | N/A |
| 10*16932 | H | 9-12-28 | HAYMAKER PROPERTIES LP | CHEVRON U.S.A. INC. | 1/8+ | 902 447 | N/A | N/A | N/A |
| 10*47051.309.1 | H | 9-12-28 | LESLIE E QUIGLEY | TH EXPLORATION LLC | 1/8+ | 905 8 | N/A | N/A | Chevron to Tug Hill: 37/457 |
| 10*47051.309.2 | H | 9-12-28 | LEWIS M QUIGLEY AND MAXINE V QUIGLEY | TH EXPLORATION LLC | 1/8+ | 907 217 | N/A | N/A | N/A |
| 10*47051.309.3 | H | 9-12-28 | GERALD W QUIGLEY AND VICKI L QUIGLEY | TH EXPLORATION LLC | 1/8+ | 905 12 | N/A | N/A | N/A |
| 10*47051.312.0 | I | 9-12-37 | JAN GRIMES SIMNACHER LEONARD A SIMNACHER | TH EXPLORATION LLC | 1/8+ | 904 472 | N/A | N/A | N/A |
| 10*47051.140.1 | J | 9-12-32 | DAVID P CHAPMAN & DEBORAH BORCK-CHAPMAN | TH EXPLORATION LLC | 1/8+ | 866 318 | N/A | N/A | N/A |
| 10*47051.140.2 | J | 9-12-32 | DOROTHY SULLIVAN POA JAMES REID SULLIVAN | TH EXPLORATION LLC | 1/8+ | 873 501 | N/A | N/A | N/A |
| 10*15477 | K | 9-14-18 | RONALD A WYCINSKI | TH EXPLORATION LLC | 1/8+ | 906 241 | N/A | N/A | N/A |
| 10*15730 | K | 9-14-18 | FRANCES V CARPENTER | TH EXPLORATION LLC | 1/8+ | 906 256 | N/A | N/A | N/A |
| 10*15752 | K | 9-14-18 | KIM O CHAMBERS AND DEBRA CHAMBERS | TH EXPLORATION LLC | 1/8+ | 906 258 | N/A | N/A | N/A |
| 10*16017 | K | 9-14-18 | FLOYD A MCFADDEN | TH EXPLORATION LLC | 1/8+ | 906 260 | N/A | N/A | N/A |
| 10*16018 | K | 9-14-18 | BARBARA MCFADDEN ALBRIGHT | TH EXPLORATION LLC | 1/8+ | 906 262 | N/A | N/A | N/A |
| 10*16030 | K | 9-14-18 | JOSEPH F CHMIELEWSKI AND SANDRA CHMIELEWSKI | TH EXPLORATION LLC | 1/8+ | 906 264 | N/A | N/A | N/A |
| 10*16031 | K | 9-14-18 | CARL J CHMIELEWSKI AND KATHLEEN A CHMIELEWSKI | TH EXPLORATION LLC | 1/8+ | 906 266 | N/A | N/A | N/A |
| 10*16033 | K | 9-14-18 | CECIL HARRY LILLY, III AND PAMELA KAY KNIGHT LILLY | TH EXPLORATION LLC | 1/8+ | 912 47 | N/A | N/A | N/A |
| 10*16035 | K | 9-14-18 | KATHARYN ANNETTE LILLY LAING AND FREDDIE JOE LAING | TH EXPLORATION LLC | 1/8+ | 912 45 | N/A | N/A | N/A |
| 10*16036 | K | 9-14-18 | KATHARYN DAY LILLY | TH EXPLORATION LLC | 1/8+ | 906 272 | N/A | N/A | N/A |
| 10*16037 | K | 9-14-18 | MARY PENELOPE LILLY MURPHY | TH EXPLORATION LLC | 1/8+ | 912 41 | N/A | N/A | N/A |
| 10*16131 | K | 9-14-18 | ERIC S DOBBS | TH EXPLORATION LLC | 1/8+ | 902 68 | N/A | N/A | N/A |
| 10*16144 | K | 9-14-18 | PATTIE S MADRID | TH EXPLORATION LLC | 1/8+ | 906 278 | N/A | N/A | N/A |
| 10*16180 | K | 9-14-18 | LARRY L CHAMBERS | TH EXPLORATION LLC | 1/8+ | 906 280 | N/A | N/A | N/A |
| 10*16181 | K | 9-14-18 | NORMA CHRISTINE WHIPP AND GERALD WAYNE BLACK | TH EXPLORATION LLC | 1/8+ | 905 281 | N/A | N/A | N/A |
| 10*16182 | K | 9-14-18 | FIRST CHRISTIAN CHURCH OF MOUNDSVILLE BY ROGER FRANCIS AND ROBERT ALBERT TRUSTEES | TH EXPLORATION LLC | 1/8+ | 906 283 | N/A | N/A | N/A |
| 10*16183 | K | 9-14-18 | ALLEN R L DAVIS AND DIANA LEE PATTERSON | TH EXPLORATION LLC | 1/8+ | 906 285 | N/A | N/A | N/A |
| 10*16239 | K | 9-14-18 | ANGELA L OLDFIELD AND KENNETH W OLDFIELD | TH EXPLORATION LLC | 1/8+ | 906 287 | N/A | N/A | N/A |
| 10*16240 | K | 9-14-18 | BONNIE SUE PATTERSON SWISHER | TH EXPLORATION LLC | 1/8+ | 906 289 | N/A | N/A | N/A |
| 10*16285 | K | 9-14-18 | JOHN A SHUTZ AND CYNTHIA J SHUTZ | TH EXPLORATION LLC | 1/8+ | 906 291 | N/A | N/A | N/A |
| 10*16441 | K | 9-14-18 | GEORGE FRANKLIN AND NANCY ANN REED | TH EXPLORATION LLC | 1/8+ | 924 619 | N/A | N/A | N/A |
| 10*16442 | K | 9-14-18 | FRED T AND JERRY L CHAMBERS | TH EXPLORATION LLC | 1/8+ | 924 174 | N/A | N/A | N/A |
| 10*16443 | K | 9-14-18 | BARBARA BROWN CHAMBERS | TH EXPLORATION LLC | 1/8+ | 924 621 | N/A | N/A | N/A |
| 10*16444 | K | 9-14-18 | CATHERINE ELLEN CHAMBERS | TH EXPLORATION LLC | 1/8+ | 924 623 | N/A | N/A | N/A |
| 10*16445 | K | 9-14-18 | DOUGLAS C AND GWENDLYN D LEWTON | TH EXPLORATION LLC | 1/8+ | 925 123 | N/A | N/A | N/A |
| 10*16483 | K | 9-14-18 | JOHN C AND BARBARA H WINTER | TH EXPLORATION LLC | 1/8+ | 924 178 | N/A | N/A | N/A |
| 10*16486 | K | 9-14-18 | DAVID ALAN WILKINSON AND PATRICIA LYNN WILKINSON | TH EXPLORATION LLC | 1/8+ | 924 180 | N/A | N/A | N/A |
| 10*16490 | K | 9-14-18 | WILLIAM H AND MERRY C COTTON | TH EXPLORATION LLC | 1/8+ | 924 176 | N/A | N/A | N/A |
| 10*16498 | K | 9-14-18 | SHELLY YEATER | TH EXPLORATION LLC | 1/8+ | 925 283 | N/A | N/A | N/A |
| 10*16511 | K | 9-14-18 | DOUGLAS R BOWEN | TH EXPLORATION LLC | 1/8+ | 906 475 | N/A | N/A | N/A |
| 10*16531 | K | 9-14-18 | KATHY DOBBS WELLS | TH EXPLORATION LLC | 1/8+ | 905 472 | N/A | N/A | N/A |
| 10*16532 | K | 9-14-18 | JEAN ANN MCFADDEN | TH EXPLORATION LLC | 1/8+ | 905 459 | N/A | N/A | N/A |
| 10*16533 | K | 9-14-18 | SHIRLEY ANN DOBBS | TH EXPLORATION LLC | 1/8+ | 905 469 | N/A | N/A | N/A |
| 10*16534 | K | 9-14-18 | TERRY LEE LASAVAGE | TH EXPLORATION LLC | 1/8+ | 905 443 | N/A | N/A | N/A |
| 10*16535 | K | 9-14-18 | CHARLES E CARSON AND MARY KAY CARSON | TH EXPLORATION LLC | 1/8+ | 906 420 | N/A | N/A | N/A |
| 10*16537 | K | 9-14-18 | KIM D BOWEN AND MADONNA M BOWEN | TH EXPLORATION LLC | 1/8+ | 907 415 | N/A | N/A | N/A |
| 10*16540 | K | 9-14-18 | JAMES A WINTER AND CONNIE G WINTER | TH EXPLORATION LLC | 1/8+ | 924 184 | N/A | N/A | N/A |
| 10*16569 | K | 9-14-18 | JANICE C BALE | TH EXPLORATION LLC | 1/8+ | 907 425 | N/A | N/A | N/A |
| 10*16570 | K | 9-14-18 | ROBERT D BOWEN AND MARCIA M R BOWEN | TH EXPLORATION LLC | 1/8+ | 907 420 | N/A | N/A | N/A |
| 10*16576 | K | 9-14-18 | LINDA A MINER AND MICHAEL W MINER | TH EXPLORATION LLC | 1/8+ | 907 484 | N/A | N/A | N/A |
| 10*16580 | K | 9-14-18 | HAROLD C MCFADDEN | TH EXPLORATION LLC | 1/8+ | 907 480 | N/A | N/A | N/A |
| 10*16581 | K | 9-14-18 | HELEN L SCHILLING | TH EXPLORATION LLC | 1/8+ | 907 489 | N/A | N/A | N/A |
| 10*16582 | K | 9-14-18 | DORA BROCK BRAMMER | TH EXPLORATION LLC | 1/8+ | 907 429 | N/A | N/A | N/A |
| 10*16580 | K | 9-14-18 | RONALD J AND JENNIFER CHAMBERS FICCA | TH EXPLORATION LLC | 1/8+ | 924 186 | N/A | N/A | N/A |

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Operator's Well No. Ten High 1S - 5HM

| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|---------|--|-----------------------|---------|------------------|------------|------------|------------|
| 10*16726 | K | 9-14-18 | LESLEY WHITE | TH EXPLORATION LLC | 1/8+ | 924 182 | N/A | N/A | N/A |
| 10*16733 | K | 9-14-18 | SARAH L BISHOP | TH EXPLORATION LLC | 1/8+ | 924 172 | N/A | N/A | N/A |
| 10*16835 | K | 9-14-18 | ERNEST CARL AUGUSTINE JR | TH EXPLORATION LLC | 1/8+ | 924 188 | N/A | N/A | N/A |
| 10*16882 | K | 9-14-18 | JAMES LEROY AND DARLENE DOBBS OWENS | TH EXPLORATION LLC | 1/8+ | 924 190 | N/A | N/A | N/A |
| 10*16948 | K | 9-14-18 | FREDERICK M LEWTON | TH EXPLORATION LLC | 1/8+ | 924 136 | N/A | N/A | N/A |
| 10*16949 | K | 9-14-18 | STEVEN R AND BRIANNE L UTT | TH EXPLORATION LLC | 1/8+ | 924 138 | N/A | N/A | N/A |
| 10*16950 | K | 9-14-18 | JAY E AND CECILIA E LEWTON | TH EXPLORATION LLC | 1/8+ | 924 134 | N/A | N/A | N/A |
| 10*16952 | K | 9-14-18 | RUSSELL D HERVEY | TH EXPLORATION LLC | 1/8+ | 924 132 | N/A | N/A | N/A |
| 10*16953 | K | 9-14-18 | DONALD T AND JEAN K HOGAN | TH EXPLORATION LLC | 1/8+ | 924 140 | N/A | N/A | N/A |
| 10*16965 | K | 9-14-18 | WILLIAM L WRIGHT AND CAROLINA WRIGHT | TH EXPLORATION LLC | 1/8+ | 914 524 | N/A | N/A | N/A |
| 10*16966 | K | 9-14-18 | JOHN GILLETTE AND BARBARA GILLETTE | TH EXPLORATION LLC | 1/8+ | 913 577 | N/A | N/A | N/A |
| 10*16967 | K | 9-14-18 | TARA JEANNE MINOR AND JENNIFER A KNAPP | TH EXPLORATION LLC | 1/8+ | 914 612 | N/A | N/A | N/A |
| 10*16980 | K | 9-14-18 | ROSEMARY H BEAVERS | TH EXPLORATION LLC | 1/8+ | 924 152 | N/A | N/A | N/A |
| 10*16992 | K | 9-14-18 | LINDA C ABRAHAM | TH EXPLORATION LLC | 1/8+ | 924 148 | N/A | N/A | N/A |
| 10*16993 | K | 9-14-18 | JULIA HOOVER | TH EXPLORATION LLC | 1/8+ | 924 150 | N/A | N/A | N/A |
| 10*16995 | K | 9-14-18 | DIANE ELSIE RAMSEY | TH EXPLORATION LLC | 1/8+ | 924 146 | N/A | N/A | N/A |
| 10*17129 | K | 9-14-18 | ROBERTA JANE PARKINSON | TH EXPLORATION LLC | 1/8+ | 924 142 | N/A | N/A | N/A |
| 10*17131 | K | 9-14-18 | LAURA E TOTTEN AND LONNIE R TOTTEN | TH EXPLORATION LLC | 1/8+ | 924 154 | N/A | N/A | N/A |
| 10*17134 | K | 9-14-18 | UNITED CHRISTIAN MISSIONARY SOCIETY | TH EXPLORATION LLC | 1/8+ | 924 144 | N/A | N/A | N/A |
| 10*17139 | K | 9-14-18 | AUCE G WEINER AND GERALD S WEINER | TH EXPLORATION LLC | 1/8+ | 915 131 | N/A | N/A | N/A |
| 10*17209 | K | 9-14-18 | GAYLE S SHANNON | TH EXPLORATION LLC | 1/8+ | 924 188 | N/A | N/A | N/A |
| 10*17289 | K | 9-14-18 | HAROLD R HUNT JR AND EUZABETH A HUNT | TH EXPLORATION LLC | 1/8+ | 924 170 | N/A | N/A | N/A |
| 10*17396 | K | 9-14-18 | CHRISTINE L KIDD | TH EXPLORATION LLC | 1/8+ | 924 158 | N/A | N/A | N/A |
| 10*17413 | K | 9-14-18 | ROBERT M CHAMBERS AND CHARLOTTE A CHAMBERS | TH EXPLORATION LLC | 1/8+ | 924 160 | N/A | N/A | N/A |
| 10*17436 | K | 9-14-18 | ANDREW M HOOVER AND DINAH R HOOVER | TH EXPLORATION LLC | 1/8+ | 924 156 | N/A | N/A | N/A |
| 10*17448 | K | 9-14-18 | FREDERICK L HERVEY AND CATHY J HERVEY | TH EXPLORATION LLC | 1/8+ | 924 162 | N/A | N/A | N/A |
| 10*17452 | K | 9-14-18 | ALAN H & MARY K DEGARMO | TH EXPLORATION, LLC | 1/8+ | 924 164 | N/A | N/A | N/A |
| 10*17487 | K | 9-14-18 | DEBORAH R MOKOSH | TH EXPLORATION LLC | 1/8+ | 924 166 | N/A | N/A | N/A |
| 10*17503 | K | 9-14-18 | JANICE L KUHN | TH EXPLORATION LLC | 1/8+ | 924 122 | N/A | N/A | N/A |
| 10*17504 | K | 9-14-18 | GREGG ALAN MILLER AND BETH ANN MILLER | TH EXPLORATION LLC | 1/8+ | 924 118 | N/A | N/A | N/A |
| 10*17505 | K | 9-14-18 | MICHAEL R & LEANNE DOBBS | TH EXPLORATION, LLC | 1/8+ | 924 116 | N/A | N/A | N/A |
| 10*17515 | K | 9-14-18 | GLADYS E DOBBS | TH EXPLORATION LLC | 1/8+ | 923 541 | N/A | N/A | N/A |
| 10*17516 | K | 9-14-18 | MARY V DOBBS | TH EXPLORATION LLC | 1/8+ | 923 539 | N/A | N/A | N/A |
| 10*17517 | K | 9-14-18 | JULIO ENRIQUE & DEBRA K TORRES | TH EXPLORATION, LLC | 1/8+ | 923 597 | N/A | N/A | N/A |
| 10*17520 | K | 9-14-18 | LUCY P SULLIVAN | TH EXPLORATION LLC | 1/8+ | 923 533 | N/A | N/A | N/A |
| 10*17528 | K | 9-14-18 | DEAN E GARRISON | TH EXPLORATION LLC | 1/8+ | 923 535 | N/A | N/A | N/A |
| 10*17555 | K | 9-14-18 | AARON AND JANA K PARRY | TH EXPLORATION LLC | 1/8+ | 924 113 | N/A | N/A | N/A |
| 10*17559 | K | 9-14-18 | MARVIN JERRY BLAKE AND LINDA D BLAKE | TH EXPLORATION LLC | 1/8+ | 923 528 | N/A | N/A | N/A |
| 10*17560 | K | 9-14-18 | TREVOR HOOKS | TH EXPLORATION LLC | 1/8+ | 924 110 | N/A | N/A | N/A |
| 10*17563 | K | 9-14-18 | DONALD L WOOD | TH EXPLORATION LLC | 1/8+ | 923 523 | N/A | N/A | N/A |
| 10*17579 | K | 9-14-18 | DON COFFIELD & GLENDA DOBBS | TH EXPLORATION, LLC | 1/8+ | 923 525 | N/A | N/A | N/A |
| 10*17580 | K | 9-14-18 | PAUL CRAIG CUNNINGHAM | TH EXPLORATION LLC | 1/8+ | 923 530 | N/A | N/A | N/A |
| 10*17581 | K | 9-14-18 | PAULA WEIRES | TH EXPLORATION LLC | 1/8+ | 923 486 | N/A | N/A | N/A |
| 10*17582 | K | 9-14-18 | JOHN THOMAS ERAZMUS AND JEAN R ERAZMUS | TH EXPLORATION LLC | 1/8+ | 924 124 | N/A | N/A | N/A |
| 10*17612 | K | 9-14-18 | BEVERLY A LEDBETTER | TH EXPLORATION, LLC | 1/8+ | 923 480 | N/A | N/A | N/A |
| 10*17613 | K | 9-14-18 | CARLTON DOBBS JR AND MIKHAIL PROKOPENKO | TH EXPLORATION LLC | 1/8+ | 924 120 | N/A | N/A | N/A |
| 10*17614 | K | 9-14-18 | DAVID DOBBS | TH EXPLORATION, LLC | 1/8+ | 923 489 | N/A | N/A | N/A |
| 10*17615 | K | 9-14-18 | PAULA JO WRIGHT | TH EXPLORATION, LLC | 1/8+ | 923 482 | N/A | N/A | N/A |
| 10*17616 | K | 9-14-18 | RONALD & ELIZABETH DOBBS | TH EXPLORATION, LLC | 1/8+ | 924 107 | N/A | N/A | N/A |
| 10*17617 | K | 9-14-18 | UNITED DISCIPLES OF CHRIST CHURCH | TH EXPLORATION LLC | 1/8+ | 924 129 | N/A | N/A | N/A |
| 10*17664 | K | 9-14-18 | RUDOLPH H PARSONS | TH EXPLORATION, LLC | 1/8+ | 923 511 | N/A | N/A | N/A |
| 10*17667 | K | 9-14-18 | THOMAS BRIAN WARRICK | TH EXPLORATION, LLC | 1/8+ | 923 509 | N/A | N/A | N/A |
| 10*17668 | K | 9-14-18 | KENNETH R DOBBS | TH EXPLORATION, LLC | 1/8+ | 923 503 | N/A | N/A | N/A |
| 10*17671 | K | 9-14-18 | JAMES L STOUT | TH EXPLORATION LLC | 1/8+ | 923 484 | N/A | N/A | N/A |
| 10*17674 | K | 9-14-18 | HOWARD L & BETH E WOOD | TH EXPLORATION, LLC | 1/8+ | 923 505 | N/A | N/A | N/A |
| 10*17675 | K | 9-14-18 | GREGORY D & CAROLYN J WIBLE | TH EXPLORATION, LLC | 1/8+ | 923 507 | N/A | N/A | N/A |

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Operator's Well No. Ten High 1S - 5HM

| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|---------|--|-----------------------|---------|------------------|------------|------------|------------|
| 10*17676 | K | 9-14-18 | JAMES C & DEIDRE G DORIA | TH EXPLORATION, LLC | 1/8+ | 923 513 | N/A | N/A | N/A |
| 10*17700 | K | 9-14-18 | ROGER L & MARILYN L GARRISON | TH EXPLORATION, LLC | 1/8+ | 923 472 | N/A | N/A | N/A |
| 10*17701 | K | 9-14-18 | SUE ANN WORD | TH EXPLORATION, LLC | 1/8+ | 923 470 | N/A | N/A | N/A |
| 10*17702 | K | 9-14-18 | TAMMY BETH RAMSEY | TH EXPLORATION, LLC | 1/8+ | 925 500 | N/A | N/A | N/A |
| 10*17703 | K | 9-14-18 | SHIRLEY N COX | TH EXPLORATION, LLC | 1/8+ | 923 498 | N/A | N/A | N/A |
| 10*17708 | K | 9-14-18 | BETTY LOU NOBLE | TH EXPLORATION LLC | 1/8+ | 924 127 | N/A | N/A | N/A |
| 10*17711 | K | 9-14-18 | DEBRA A WENNEMAN AND KURT J WENNEMAN | TH EXPLORATION LLC | 1/8+ | 923 520 | N/A | N/A | N/A |
| 10*17731 | K | 9-14-18 | JAMES J MCGHEE AND JEANNINE CHAMBERS MCGHEE | TH EXPLORATION LLC | 1/8+ | 914 519 | N/A | N/A | N/A |
| 10*17766 | K | 9-14-18 | EDWARD S & NANCY A ROSENTHAL | TH EXPLORATION, LLC | 1/8+ | 923 495 | N/A | N/A | N/A |
| 10*17767 | K | 9-14-18 | WILLIAM K & LINDA J MERRITT | TH EXPLORATION, LLC | 1/8+ | 923 474 | N/A | N/A | N/A |
| 10*17769 | K | 9-14-18 | GLADYS FRAZIER KING | TH EXPLORATION, LLC | 1/8+ | 923 492 | N/A | N/A | N/A |
| 10*17771 | K | 9-14-18 | CHARLES AND LISA WARRICK | TH EXPLORATION, LLC | 1/8+ | 923 477 | N/A | N/A | N/A |
| 10*17830 | K | 9-14-18 | BRIAN AND MELINDA MASTERS | TH EXPLORATION LLC | 1/8+ | 925 319 | N/A | N/A | N/A |
| 10*17878 | K | 9-14-18 | ROBERT E & SARAH M ROUSH | TH EXPLORATION, LLC | 1/8+ | 924 590 | N/A | N/A | N/A |
| 10*17879 | K | 9-14-18 | HARRY R WRIGHT JR | TH EXPLORATION, LLC | 1/8+ | 924 588 | N/A | N/A | N/A |
| 10*17880 | K | 9-14-18 | ANNA M WRIGHT | TH EXPLORATION, LLC | 1/8+ | 924 586 | N/A | N/A | N/A |
| 10*17881 | K | 9-14-18 | WAYLON L & ANGELA J MURPHEE | TH EXPLORATION, LLC | 1/8+ | 924 555 | N/A | N/A | N/A |
| 10*17885 | K | 9-14-18 | JOHN RUSSELL BECKER | TH EXPLORATION, LLC | 1/8+ | 924 540 | N/A | N/A | N/A |
| 10*47051.325.1 | K | 9-14-18 | JUDITH A LEWANDOSKY AND ALAN E LEWANDOSKY | TH EXPLORATION LLC | 1/8+ | 906 225 | N/A | N/A | N/A |
| 10*47051.325.2 | K | 9-14-18 | TIMMY LEE STOUT AND DOROTHY MARIE STOUT | TH EXPLORATION LLC | 1/8+ | 906 222 | N/A | N/A | N/A |
| 10*47051.325.3 | K | 9-14-18 | NICHOLAS D PAVLIK AND GLORIA K PAVLIK | TH EXPLORATION LLC | 1/8+ | 906 228 | N/A | N/A | N/A |
| 10*47051.325.4 | K | 9-14-18 | JAMES H WHITE AND RITA FRANKS WHITE | TH EXPLORATION LLC | 1/8+ | 906 230 | N/A | N/A | N/A |
| 10*47051.325.5 | K | 9-14-18 | SAMUEL ALAN MCCORD AND WINIFRED A MCKEE | TH EXPLORATION LLC | 1/8+ | 906 232 | N/A | N/A | N/A |
| 10*47051.325.6 | K | 9-14-18 | THOMAS O MCCORD | TH EXPLORATION LLC | 1/8+ | 906 235 | N/A | N/A | N/A |
| 10*47051.325.7 | K | 9-14-18 | SHERON JONES | TH EXPLORATION LLC | 1/8+ | 906 237 | N/A | N/A | N/A |
| 10*47051.325.8 | K | 9-14-18 | RICK PAVLIK | TH EXPLORATION LLC | 1/8+ | 906 239 | N/A | N/A | N/A |
| 10*15752 | L | 9-15-3 | KIM O CHAMBERS AND DEBRA CHAMBERS | TH EXPLORATION LLC | 1/8+ | 906 258 | N/A | N/A | N/A |
| 10*16017 | L | 9-15-3 | FLOYD A MCFADDEN | TH EXPLORATION LLC | 1/8+ | 906 260 | N/A | N/A | N/A |
| 10*16018 | L | 9-15-3 | BARBARA MCFADDEN ALBRIGHT | TH EXPLORATION LLC | 1/8+ | 906 262 | N/A | N/A | N/A |
| 10*16143 | L | 9-15-3 | MARY LOU CHAMBERS | TH EXPLORATION LLC | 1/8+ | 906 276 | N/A | N/A | N/A |
| 10*16144 | L | 9-15-3 | PATTIE S MADRID | TH EXPLORATION LLC | 1/8+ | 906 278 | N/A | N/A | N/A |
| 10*16180 | L | 9-15-3 | LARRY L CHAMBERS | TH EXPLORATION LLC | 1/8+ | 906 280 | N/A | N/A | N/A |
| 10*16181 | L | 9-15-3 | NORMA CHRISTINE WHIPP AND GERALD WAYNE BLACK | TH EXPLORATION LLC | 1/8+ | 906 281 | N/A | N/A | N/A |
| 10*16182 | L | 9-15-3 | FIRST CHRISTIAN CHURCH OF MOUNDVILLE BY ROGER FRANCIS AND ROBERT ALBERT TRUSTEES | TH EXPLORATION LLC | 1/8+ | 906 283 | N/A | N/A | N/A |
| 10*16239 | L | 9-15-3 | ANGELA L OLDFIELD AND KENNETH W OLDFIELD | TH EXPLORATION LLC | 1/8+ | 906 287 | N/A | N/A | N/A |
| 10*16285 | L | 9-15-3 | JOHN A SHUTZ AND CYNTHIA J SHUTZ | TH EXPLORATION LLC | 1/8+ | 906 291 | N/A | N/A | N/A |
| 10*16441 | L | 9-15-3 | GEORGE FRANKLIN AND NANCY ANN REED | TH EXPLORATION LLC | 1/8+ | 924 619 | N/A | N/A | N/A |
| 10*16442 | L | 9-15-3 | FRED T AND JERRY L CHAMBERS | TH EXPLORATION LLC | 1/8+ | 924 174 | N/A | N/A | N/A |
| 10*16443 | L | 9-15-3 | BARBARA BROWN CHAMBERS | TH EXPLORATION LLC | 1/8+ | 924 621 | N/A | N/A | N/A |
| 10*16444 | L | 9-15-3 | CATHERINE ELLEN CHAMBERS | TH EXPLORATION LLC | 1/8+ | 924 623 | N/A | N/A | N/A |
| 10*16445 | L | 9-15-3 | DOUGLAS C AND GWENDLYN D LEWTON | TH EXPLORATION LLC | 1/8+ | 925 123 | N/A | N/A | N/A |
| 10*16483 | L | 9-15-3 | JOHN C AND BARBARA H WINTER | TH EXPLORATION LLC | 1/8+ | 924 178 | N/A | N/A | N/A |
| 10*16486 | L | 9-15-3 | DAVID ALAN WILKINSON AND PATRICIA LYNN WILKINSON | TH EXPLORATION LLC | 1/8+ | 924 180 | N/A | N/A | N/A |
| 10*16490 | L | 9-15-3 | WILLIAM H AND MERRY C COTTON | TH EXPLORATION LLC | 1/8+ | 924 176 | N/A | N/A | N/A |
| 10*16511 | L | 9-15-3 | DOUGLAS R BOWEN | TH EXPLORATION LLC | 1/8+ | 906 475 | N/A | N/A | N/A |
| 10*16532 | L | 9-15-3 | JEAN ANN MCFADDEN | TH EXPLORATION LLC | 1/8+ | 906 459 | N/A | N/A | N/A |
| 10*16534 | L | 9-15-3 | TERRY LEE LASAVAGE | TH EXPLORATION LLC | 1/8+ | 906 443 | N/A | N/A | N/A |
| 10*16535 | L | 9-15-3 | CHARLES E CARSON AND MARY KAY CARSON | TH EXPLORATION LLC | 1/8+ | 906 420 | N/A | N/A | N/A |
| 10*16537 | L | 9-15-3 | KIM D BOWEN AND MADONNA M BOWEN | TH EXPLORATION LLC | 1/8+ | 907 415 | N/A | N/A | N/A |
| 10*16540 | L | 9-15-3 | JAMES A WINTER AND CONNIE G WINTER | TH EXPLORATION LLC | 1/8+ | 924 184 | N/A | N/A | N/A |
| 10*16569 | L | 9-15-3 | JANICE C BALE | TH EXPLORATION LLC | 1/8+ | 907 425 | N/A | N/A | N/A |
| 10*16570 | L | 9-15-3 | ROBERT D BOWEN AND MARCIA M R BOWEN | TH EXPLORATION LLC | 1/8+ | 907 420 | N/A | N/A | N/A |
| 10*16576 | L | 9-15-3 | LINDA A MINER AND MICHAEL W MINER | TH EXPLORATION LLC | 1/8+ | 907 484 | N/A | N/A | N/A |
| 10*16580 | L | 9-15-3 | HAROLD C MCFADDEN | TH EXPLORATION LLC | 1/8+ | 907 480 | N/A | N/A | N/A |
| 10*16581 | L | 9-15-3 | HELEN L SCHILLING | TH EXPLORATION LLC | 1/8+ | 907 489 | N/A | N/A | N/A |
| 10*16582 | L | 9-15-3 | DORA BROCK GRAMMER | TH EXPLORATION LLC | 1/8+ | 907 429 | N/A | N/A | N/A |

doh 19610 51-

WW-6A1 Supplement

Operator's Well No. Ten High 1S - 5HM

| Lease Name or No | Tag | Parcel | Grantor, Lessor, etc. | Grantee, Lessee, etc. | Royalty | Deed Book / Page | Assignment | Assignment | Assignment |
|------------------|-----|--------|---|-----------------------|---------|------------------|------------|------------|------------|
| 10*16680 | L | 9-15-3 | RONALD J AND JENNIFER CHAMBERS FCCA | TH EXPLORATION LLC | 1/8+ | 924 186 | N/A | N/A | N/A |
| 10*16726 | L | 9-15-3 | LESLEY K WHITE | TH EXPLORATION LLC | 1/8+ | 924 182 | N/A | N/A | N/A |
| 10*16733 | L | 9-15-3 | SARAH L BISHOP | TH EXPLORATION LLC | 1/8+ | 924 172 | N/A | N/A | N/A |
| 10*16835 | L | 9-15-3 | ERNEST CARL AUGUSTINE JR | TH EXPLORATION LLC | 1/8+ | 924 188 | N/A | N/A | N/A |
| 10*16848 | L | 9-15-3 | FREDERICK M LEWTON | TH EXPLORATION LLC | 1/8+ | 924 136 | N/A | N/A | N/A |
| 10*16949 | L | 9-15-3 | STEVEN R AND BRIANNE L UTT | TH EXPLORATION LLC | 1/8+ | 924 138 | N/A | N/A | N/A |
| 10*16950 | L | 9-15-3 | JAY E AND CECILIA E LEWTON | TH EXPLORATION LLC | 1/8+ | 924 134 | N/A | N/A | N/A |
| 10*16952 | L | 9-15-3 | RUSSELL D HERVEY | TH EXPLORATION LLC | 1/8+ | 924 132 | N/A | N/A | N/A |
| 10*16953 | L | 9-15-3 | DONALD T AND JEAN K HOGAN | TH EXPLORATION LLC | 1/8+ | 924 140 | N/A | N/A | N/A |
| 10*16990 | L | 9-15-3 | ROSEMARY H BEAVERS | TH EXPLORATION LLC | 1/8+ | 924 152 | N/A | N/A | N/A |
| 10*16992 | L | 9-15-3 | LINDA C ABRAHAM | TH EXPLORATION LLC | 1/8+ | 924 148 | N/A | N/A | N/A |
| 10*16993 | L | 9-15-3 | JULIA HOOVER | TH EXPLORATION LLC | 1/8+ | 924 150 | N/A | N/A | N/A |
| 10*16995 | L | 9-15-3 | DIANE ELSIE RAMSEY | TH EXPLORATION LLC | 1/8+ | 924 146 | N/A | N/A | N/A |
| 10*17129 | L | 9-15-3 | ROBERTA JANE PARKINSON | TH EXPLORATION LLC | 1/8+ | 924 142 | N/A | N/A | N/A |
| 10*17131 | L | 9-15-3 | LAURA E TOTTEN AND LONNIE R TOTTEN | TH EXPLORATION LLC | 1/8+ | 924 154 | N/A | N/A | N/A |
| 10*17134 | L | 9-15-3 | UNITED CHRISTIAN MISSIONARY SOCIETY | TH EXPLORATION LLC | 1/8+ | 924 14 | N/A | N/A | N/A |
| 10*17209 | L | 9-15-3 | GAYLE S SHANNON | TH EXPLORATION LLC | 1/8+ | 924 168 | N/A | N/A | N/A |
| 10*17289 | L | 9-15-3 | HAROLD R HUNT JR AND ELIZABETH A HUNT | TH EXPLORATION LLC | 1/8+ | 924 170 | N/A | N/A | N/A |
| 10*17396 | L | 9-15-3 | CHRISTINE L KIDD | TH EXPLORATION LLC | 1/8+ | 924 158 | N/A | N/A | N/A |
| 10*17433 | L | 9-15-3 | ROBERT M CHAMBERS AND CHARLOTTE A CHAMBERS | TH EXPLORATION LLC | 1/8+ | 924 160 | N/A | N/A | N/A |
| 10*17436 | L | 9-15-3 | ANDREW M HOOVER AND DINAH R HOOVER | TH EXPLORATION LLC | 1/8+ | 924 156 | N/A | N/A | N/A |
| 10*17448 | L | 9-15-3 | FREDERICK L HERVEY AND CATHY J HERVEY | TH EXPLORATION LLC | 1/8+ | 924 162 | N/A | N/A | N/A |
| 10*17452 | L | 9-15-3 | ALAN H & MARY K DEGARMO | TH EXPLORATION, LLC | 1/8+ | 924 164 | N/A | N/A | N/A |
| 10*17486 | L | 9-15-3 | JOSELYN M KEELY | TH EXPLORATION LLC | 1/8+ | 929 364 | N/A | N/A | N/A |
| 10*17487 | L | 9-15-3 | DEBORAH R MOKOSH | TH EXPLORATION LLC | 1/8+ | 924 166 | N/A | N/A | N/A |
| 10*17563 | L | 9-15-3 | DONALD L WOOD | TH EXPLORATION LLC | 1/8+ | 923 523 | N/A | N/A | N/A |
| 10*17617 | L | 9-15-3 | UNITED DISCIPLES OF CHRIST CHURCH | TH EXPLORATION LLC | 1/8+ | 924 129 | N/A | N/A | N/A |
| 10*17674 | L | 9-15-3 | HOWARD L WOOD AND BETH E WOOD | TH EXPLORATION LLC | 1/8+ | 923 505 | N/A | N/A | N/A |
| 10*17675 | L | 9-15-3 | GREGORY DEANE WIBLE AND CAROLYN JEAN WIBLE | TH EXPLORATION LLC | 1/8+ | 923 507 | N/A | N/A | N/A |
| 10*17701 | L | 9-15-3 | SUE ANN WORD | TH EXPLORATION, LLC | 1/8+ | 923 470 | N/A | N/A | N/A |
| 10*17702 | L | 9-15-3 | TAMMY BETH RAMSEY | TH EXPLORATION LLC | 1/8+ | 925 500 | N/A | N/A | N/A |
| 10*17731 | L | 9-15-3 | JAMES J MCGHEE AND JEANNINE CHAMBERS MCGHEE | TH EXPLORATION LLC | 1/8+ | 914 519 | N/A | N/A | N/A |
| 10*47051.325.1 | L | 9-15-3 | JUDITH A LEWANDOSKY AND ALAN E LEWANDOSKY | TH EXPLORATION LLC | 1/8+ | 906 225 | N/A | N/A | N/A |
| 10*47051.325.3 | L | 9-15-3 | NICHOLAS D PAVLIK AND GLORIA K PAVLIK | TH EXPLORATION LLC | 1/8+ | 906 228 | N/A | N/A | N/A |
| 10*47051.325.4 | L | 9-15-3 | JAMES H WHITE AND RITA FRANKS WHITE | TH EXPLORATION LLC | 1/8+ | 906 230 | N/A | N/A | N/A |
| 10*47051.325.5 | L | 9-15-3 | SAMUEL ALAN MCCORD AND WINIFRED A MCKEE | TH EXPLORATION LLC | 1/8+ | 906 232 | N/A | N/A | N/A |
| 10*47051.325.6 | L | 9-15-3 | THOMAS O MCCORD | TH EXPLORATION LLC | 1/8+ | 906 235 | N/A | N/A | N/A |
| 10*47051.325.7 | L | 9-15-3 | SHERON JONES | TH EXPLORATION LLC | 1/8+ | 906 237 | N/A | N/A | N/A |
| 10*47051.325.8 | L | 9-15-3 | RICK PAVLIK | TH EXPLORATION LLC | 1/8+ | 906 239 | N/A | N/A | N/A |
| 10*16071 | M | 9-15-4 | VIRGINIA LESLIE BERTRAM | TH EXPLORATION LLC | 1/8+ | 901 370 | N/A | N/A | N/A |
| 10*16402 | M | 9-15-4 | VALERIE L WAGNER | TH EXPLORATION LLC | 1/8+ | 921 484 | N/A | N/A | N/A |
| 10*16421 | M | 9-15-4 | SAMUEL EDGAR LEWIS AND EUZABETH LEWIS | TH EXPLORATION LLC | 1/8+ | 921 449 | N/A | N/A | N/A |
| 10*16491 | M | 9-15-4 | BELA N WELLENREITER | TH EXPLORATION LLC | 1/8+ | 921 467 | N/A | N/A | N/A |
| 10*17303 | M | 9-15-4 | MICHAEL EVES | TH EXPLORATION LLC | 1/8+ | 909 516 | N/A | N/A | N/A |
| 10*17320 | M | 9-15-4 | ROBERT M RICHARDSON AND NANCY S RICHARDSON | TH EXPLORATION LLC | 1/8+ | 909 528 | N/A | N/A | N/A |
| 10*17325 | M | 9-15-4 | PHYLLIS ADAMS AND JOSEPH ADAMS | TH EXPLORATION LLC | 1/8+ | 909 520 | N/A | N/A | N/A |
| 10*17340 | M | 9-15-4 | JEAN R DRIGGERS AND WILLIAM C DRIGGERS | TH EXPLORATION LLC | 1/8+ | 909 524 | N/A | N/A | N/A |
| 10*17341 | M | 9-15-4 | JUDITH V RICHARDSON AND DENNIS L ROBICHAUD | TH EXPLORATION LLC | 1/8+ | 921 455 | N/A | N/A | N/A |
| 10*17412 | M | 9-15-4 | CHARLES L SHILLITO | TH EXPLORATION LLC | 1/8+ | 921 458 | N/A | N/A | N/A |
| 10*17439 | M | 9-15-4 | WILLARD D MCCALL JR AND ADELE HUEY MCCALL | TH EXPLORATION LLC | 1/8+ | 921 454 | N/A | N/A | N/A |
| 10*17509 | M | 9-15-4 | BRIAN A MCCALL | TH EXPLORATION LLC | 1/8+ | 921 451 | N/A | N/A | N/A |
| 10*17525 | M | 9-15-4 | PAUL W STIFEL AND MARY M GROVER-STIFEL | TH EXPLORATION LLC | 1/8+ | 921 460 | N/A | N/A | N/A |
| 10*18294 | M | 9-15-4 | MARY M AND WINFRED K MARTIN | TH EXPLORATION, LLC | 1/8+ | 929 342 | N/A | N/A | N/A |
| 10*47051.318.46 | M | 9-15-4 | CAROL L BOBBY AND DONALD J BOBBY | TH EXPLORATION LLC | 1/8+ | 905 603 | N/A | N/A | N/A |
| 10*47051.318.48 | M | 9-15-4 | DEBORAH SUE KYLE 231 EAST 24TH AVENUE | TH EXPLORATION LLC | 1/8+ | 905 600 | N/A | N/A | N/A |

COPY

AFFIDAVIT

STATE OF TEXAS §
§ SS
COUNTY OF TARRANT §

On this 18th day of October, 2016, before me, the undersigned authority, personally appeared David D. Kalish ("Affiant") who being first duly sworn under oath, deposes and saith:

1. TH Exploration, LLC, TH Exploration II, LLC and TH Exploration III, LLC are wholly owned subsidiaries of THQ Appalachia I, LLC.
2. Tug Hill Operating, LLC provides oil and gas operations services to THQ Appalachia I, LLC under an Operating Services Agreement dated July 23, 2014.
3. David D. Kalish, the Affiant, is the Vice President of Tug Hill Operating, LLC, THQ Appalachia I, LLC, TH Exploration, LLC, TH Exploration II, LLC and TH Exploration III, LLC, and;
3. Tug Hill Operating, LLC is authorized to operate and maintain the assets owned by THQ Appalachia I, LLC, including, as referenced above, TH Exploration, LLC, TH Exploration II, LLC, and TH Exploration III, LLC, including oil and gas leases, wells, pipelines, surface facilities, and other all other assets that support the business of THQ Appalachia I, LLC, and;
4. Specifically, Tug Hill Operating, LLC is authorized to submit and obtain well work permits and carry out all activities pursuant to such work permits for assets owned by TH Exploration, LLC, TH Exploration II, LLC, TH Exploration III, LLC.

FURTHER, AFFIANT SAITH NOT.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this 18th day of October, 2016.

David D. Kalish
Affiant: David D. Kalish

JURAT

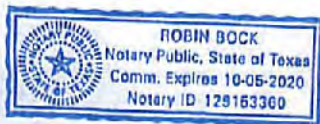
Jan Pest
MARSHALL County 03:44:20 PM
Instrument No 1416299
Date Recorded 10/19/2016
Document Type HIS
Pages Recorded 1
Book-Page 28-62
Recording Fee \$5.00
Additional \$6.00

STATE OF TEXAS §
§ SS
COUNTY OF TARRANT §

Sworn and subscribed to (or affirmed) before me on this, the 18th day of October, 2016, by David D. Kalish

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

My Commission Expires: 10-05-2020
Signature/Notary Public: Robin Bock
Name/Notary Public (Print): Robin Bock



STATE OF WEST VIRGINIA §
 §
COUNTY OF MARSHALL §

Jan Post
MARSHALL County 12:43:01 PM
Instrument No 1404876
Date Recorded 05/20/2016
Document Type ASN
Pages Recorded 20
Book-Page 36-148
Recording Fee \$20.00
Additional \$8.00

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "Assignment") is made and entered into this 17th day of May, 2016 (the "Effective Date"), by and between CHEVRON U.S.A. INC. (hereinafter "Assignor") and TH EXPLORATION, LLC (hereinafter "Assignee") pursuant to the terms of that certain Acreage Trade Agreement between the Assignor and the Assignee dated May 2, 2016 (the "Acreage Trade Agreement"). Capitalized terms used but not defined herein and defined in the Acreage Trade Agreement shall have the meanings given to such terms in the Acreage Trade Agreement.

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in Exhibit "A", and as depicted in Exhibits "A-1" and "A-2", attached hereto and made a part hereof (hereinafter the "Leases"); and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases as described below.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. Assignment. Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, except that Assignor accepts and reserves from this Assignment the Chevron ORRI previously conveyed to Assignor and as described in that certain Memorandum of Assignment of Oil and Gas Lease Interests dated November 6, 2012 by and between Cornell Holdings Incorporated and Chevron U.S.A. Inc., which is recorded at Book 0028, Page 0239 in the Office of the County Clerk of Marshall County, West Virginia.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignee or its designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

2. Special Warranty. Assignor represents and warrants that Assignor has not conveyed or otherwise encumbered (other than Permitted Encumbrances) its interest in the Conveyed Interests since the time that Assignor obtained its interests in the Leases. Assignor does covenant, promise and agree, to and with the Assignee, its respective successors and assigns, to forever specially warrant and defend the title to the Leases or portions thereof included under this Assignment, unto the Assignee and its respective successors and assigns, against the lawful claims of Assignor, and all persons claiming, or to claim, the same or any part thereof, by, through or under Assignor.

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STATE OF WEST VIRGINIA §
 §
COUNTY OF MARSHALL §

ASSIGNMENT AND CONVEYANCE

THIS ASSIGNMENT AND CONVEYANCE (the "**Assignment**") is made and entered into this 29th day of November, 2016 (the "**Effective Date**"), by and between **CHEVRON U.S.A. INC.** (hereinafter "**Assignor**") and **TH EXPLORATION, LLC** (hereinafter "**Assignee**") pursuant to the terms of that certain Acreage Trade Agreement between the Assignor and the Assignee dated May 2, 2016 (the "**Acreage Trade Agreement**"). Capitalized terms used but not defined herein and defined in the Acreage Trade Agreement shall have the meanings given to such terms in the Acreage Trade Agreement.

WITNESSETH:

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to those certain Oil and Gas Leases situated in Marshall County, West Virginia, as described in Exhibit "A", attached hereto and made a part hereof (hereinafter the "**Leases**"); and

WHEREAS, Assignor desires to assign, set over, and transfer to Assignee all of Assignor's right, title, and interest in and to the Leases as described below.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and subject to the limited warranties, restrictions and conditions hereinafter mentioned, the parties hereto, intending to be legally bound, do covenant and agree as follows:

1. **Assignment.** Assignor does hereby grant, bargain, sell, convey, deliver, assign, set over and transfer, as of the Effective Date, to Assignee, its respective successors and assigns, forever, all of Assignor's right, title and interest in and to the Leases, and the lands covered thereby, together with all rights incident thereto and appurtenances thereon, and that Assignor excepts and reserves from this Assignment the Chevron ORRI previously conveyed to Assignor and as described in that certain Memorandum of Assignment of Oil and Gas Lease Interests dated November 6, 2012 by and between Cornell Holdings Incorporated and Chevron U.S.A. Inc., which is recorded at Book 0028, Page 0239 in the Office of the County Clerk of Marshall County, West Virginia.

TO HAVE AND TO HOLD such right, title and interest in and to the Leases unto Assignee or its designee, and their respective successors and assigns, forever, in accordance with the provisions of this Assignment.

2. **Special Warranty.** Assignor represents and warrants that Assignor has not conveyed or otherwise encumbered (other than Permitted Encumbrances) its interest in the Leases since the time that Assignor obtained its interests in the Leases. Assignor does covenant, promise and agree, to and with the Assignee, its respective successors and assigns, to forever specially warrant and defend the title to the Leases or portions thereof included under this Assignment, unto the Assignee and its respective successors and assigns, against the lawful claims of Assignor, and all persons claiming, or to claim, the same or any part thereof, by, through or under Assignor.



August 16, 2017

WV Department of Environmental Protection
Office of Oil & Gas
601 57th Street, SE
Charleston, WV 25304
Attention: Laura Adkins

RE: Ten High 1S-5HM

Subject: Marshall County Route 21/9 and 21/11 Road Crossing Letter

Dear Laura:

Tug Hill Operating, LLC (THO) hereby submits this letter as confirmation that THO has obtained the right to drill, extract and produce the minerals under Marshall County Route 21/9 and 21/11 in the area reflected on the Ten High 1S-5HM well plat. THO has conducted a full title search in the relevant Court House to confirm its ownership under said County Routes and is not currently aware of any recorded document that would suggest an ownership other than THO.

If your office has any questions or concerns regarding the contents of this letter, please do not hesitate to contact me directly at 304-376-0111, or by email at amiller@tug-hill.com.

Sincerely,

A handwritten signature in blue ink that reads "Amy L. Miller".

Amy L. Miller
Permitting Specialist - Appalachia

51-019641000

WW-PN
(11-18-2015)

**Horizontal Natural Gas Well Work Permit
Application Notice By Publication**

Notice is hereby given:

Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: Moundsville Daily Echo

Public Notice Date: July 6 & July 13, 2017

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: Tug Hill Operating, LLC **Well Number:** TEN HIGH 1S-5HM

Address: 380 Southpointe Blvd, Southpointe Plaza II, Suite 200
Canonsburg, PA 15317

Business Conducted: Natural gas production.

Location –

State: West Virginia County: Marshall
District: Meade Quadrangle: Glen Easton 7.5'
UTM Coordinate NAD83 Northing: 4406356.83
UTM coordinate NAD83 Easting: 527307.78
Watershed: (HUC-10) Fish Creek

Coordinate Conversion:

To convert the coordinates above into longitude and latitude, visit: http://tagis.dep.wv.gov/convert/llutm_conus.php

Electronic notification:

To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications:

Copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.comments@wv.gov.

Submitting Comments:

Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304. Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

03/09/2018

51-01966 MOD



(304) 845-2660
P.O. BOX 369
MOUNDSVILLE
WEST VIRGINIA
26041

AFFIDAVIT OF PUBLICATION

STATE OF WEST VIRGINIA,
COUNTY OF MARSHALL, to wit

I, Melanie S. Murdock being first duly sworn upon my oath, do depose and say:

- that I am Legal Advertising Manager of the MOUNDSVILLE DAILY ECHO, a Republican newspaper;
- that I have been duly authorized to execute this affidavit;
- that such newspaper has been published for over 119 years, is regularly published afternoons daily except Saturdays and Sundays, for at least fifty weeks during the calendar year, in the municipality of Moundsville, Marshall County, West Virginia.
- that such newspaper is a newspaper of "general circulation" as defined in Art. 3, Chap. 59 of the Code of West Virginia 1931 as amended, within Moundsville and Marshall County;
- that such newspaper averages in length four or more pages, exclusive of any cover, per issue;
- that such newspaper is circulated to the general public at a definite price or consideration;
- that such newspaper is a newspaper to which the general public resorts for passing events of a political, religious, commercial and social nature and for current happenings, announcements, miscellaneous reading matters, advertisements and other notices;
- and that the annexed notice described as follows:

Legal Advertisement

PARTY(ies)

Gas Well Permit / TEN HIGH 1S-5HM

NATURE (and agency if heard before one)

CERTIF-BILL TO

Tug Hill Operating
Amy Miller
380 Southpointe Blvd., Plaza II
Suite 200
Canonsburg, PA 15317

WAS PUBLISHED IN SAID NEWSPAPER AS FOLLOWS

| | |
|-------|------------------|
| Times | Dates |
| 2 | July 6, 13, 2017 |

| | |
|----------|---------------------|
| BY WORDS | PUBLICATION CHARGES |
| 502.25 | \$101.05 |

(signed)

Melanie S. Murdock

NOTARIZATION

13th

Notary Public

Amy McElmurry

Notary Public
Amy McElmurry
Moundsville Daily Echo
P.O. Box 369
Moundsville, WV 26041
My Commission Expires August 23, 2019

LEGAL ADVERTISEMENT

Horizontal Natural Gas Well Work Permit

Application Notice By Publication Notice is hereby given: Pursuant to West Virginia Code 22-6A-10(e) prior to filing an application for a permit for a horizontal well the applicant shall publish in the county in which the well is located or is proposed to be located a Class II legal advertisement.

Paper: Moundsville Daily Echo
Public Notice Date: July 6 & July 13, 2017.

The following applicant intends to apply for a horizontal natural well work permit which disturbs three acres or more of surface excluding pipelines, gathering lines and roads or utilizes more than two hundred ten thousand gallons of water in any thirty day period.

Applicant: Tug Hill Operating, LLC
Well Number: TEN HIGH 1S-5HM
Address: 380 Southpointe Blvd., Southpointe Plaza II, Suite 200, Canonsburg, PA 15317

Business Conducted: Natural gas production
Location -
State: West Virginia
County: Marshall
District: Meade
Quadrangle: Glen Easton 7.5'
UTM Coordinate NAD83 North- ing: 4406356.83
UTM Coordinate NAD83 Easting: 527307.78

Watershed: (HUC-10) Fish Creek
Coordinate Conversion: To convert the coordinates above into longitude and latitude, visit: http://tags.dep.wv.gov/convert/latlon_convus.php

Electronic notification: To receive an email when applications have been received or issued by the Office of Oil and Gas, visit <http://www.dep.wv.gov/insidedep/Pages/DEPMailingLists.aspx> to sign up.

Reviewing Applications: copies of the proposed permit application may be reviewed at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE Charleston, WV 25304 (304-926-0450). Full copies or scans of the proposed permit application will cost \$15, whether mailed or obtained at DEP headquarters. Copies may be requested by calling the office or by sending an email to DEP.comments@wv.gov.

Submitting comments: Comments may be submitted online at <https://apps.dep.wv.gov/oog/comments/comments.cfm>, or by letter to Permit Review, Office of Oil and Gas, 601 57th Street, SE Charleston, WV 25304, Please reference the county, well number, and operator when using this option.

Regardless of format for comment submissions, they must be received no later than thirty days after the permit application is received by the Office of Oil and Gas.

For information related to horizontal drilling visit: www.dep.wv.gov/oil-and-gas/pages/default.aspx

PUBLISH: July 6, 13, 2017.

03/09/2018

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION**

Date of Notice Certification: 12/21/2017

API No. 47- 051 - 01964 MOB
Operator's Well No. Ten High 1S-5HM
Well Pad Name: Ten High

Notice has been given:

Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

| | | | | |
|-------------|----------------------------|---------------------------|--|---------------------|
| State: | <u>West Virginia</u> | UTM NAD 83 | Easting: | <u>527,326.35</u> |
| County: | <u>Marshall</u> | | Northing: | <u>4,406,352.60</u> |
| District: | <u>Meade</u> | Public Road Access: | <u>Shepherd Ridge Lane (Co. Rt. 21/9)</u> | |
| Quadrangle: | <u>Glen Easton 7.5'</u> | Generally used farm name: | <u>LAWRENCE & SHIRLEY CONKLE, ESTS</u> | |
| Watershed: | <u>(HUC 10) Fish Creek</u> | | | |

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

| | |
|--|---|
| <p>Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following:</p> <p>*PLEASE CHECK ALL THAT APPLY</p> <p><input type="checkbox"/> 1. NOTICE OF SEISMIC ACTIVITY or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED</p> <p><input checked="" type="checkbox"/> 2. NOTICE OF ENTRY FOR PLAT SURVEY or <input type="checkbox"/> NO PLAT SURVEY WAS CONDUCTED</p> <p><input type="checkbox"/> 3. NOTICE OF INTENT TO DRILL or <input checked="" type="checkbox"/> NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or</p> <p style="padding-left: 100px;"><input type="checkbox"/> WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)</p> <p><input checked="" type="checkbox"/> 4. NOTICE OF PLANNED OPERATION</p> <p><input checked="" type="checkbox"/> 5. PUBLIC NOTICE</p> <p><input checked="" type="checkbox"/> 6. NOTICE OF APPLICATION</p> | <p>OOG OFFICE USE ONLY</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED/ NOT REQUIRED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> <p><input type="checkbox"/> RECEIVED</p> |
|--|---|

Required Attachments:

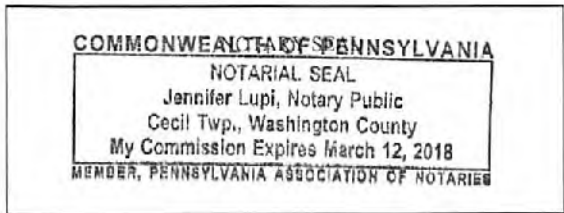
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The attached Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

Certification of Notice is hereby given:

THEREFORE, I Amy L. Miller *Amy Miller*, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: Tug Hill Operating, LLC
By: Amy L. Miller
Its: Permitting Specialist - Appalachia
Telephone: 724-749-8388

Address: 380 Southpointe Blvd, Southpointe Plaza II, Suite 200
Canonsburg, PA 15317
Facsimile: 724-338-2030
Email: amiller@tug-hillop.com



Subscribed and sworn before me this 21st day of Dec. 2017.
Jennifer Lupi Notary Public
My Commission Expires March 12, 2018

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION**

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 12/20/2017 **Date Permit Application Filed:** 12/21/2017

Notice of:

- PERMIT FOR ANY WELL WORK
- CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

- PERSONAL SERVICE
- REGISTERED MAIL
- METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Application Notice WSSP Notice E&S Plan Notice Well Plat Notice is hereby provided to:

SURFACE OWNER(s)

Name: Estate of Lawrence & Shirley Mae Conkle c/o Roy Conkle
Address: 75 Arlington Avenue
Moundsville, WV 26041

Name: Roy A. Conkle, Sr., and Lorie A.
Address: 75 Arlington Avenue
Moundsville, WV 26041 *See Attached*

SURFACE OWNER(s) (Road and/or Other Disturbance)

Name: Robert G. Hubbs and Scarlett E. Otte
Address: 132 Shepherds Ridge Lane
Glen Easton, WV 26039

Name: None
Address: _____

SURFACE OWNER(s) (Impoundments or Pits)

Name: None
Address: _____

COAL OWNER OR LESSEE

Name: Murray Energy Corporation
Address: 46226 National Road
St. Clairsville, OH 43950

COAL OPERATOR

Name: Same as above coal owner
Address: _____

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)

Name: _____
Address: _____

OPERATOR OF ANY NATURAL GAS STORAGE FIELD

Name: None
Address: _____

*Please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:

Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions

Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise require alteration to address the items

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:

Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:

Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:

Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

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

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site <http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx> and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

- (1) The proposed well work will constitute a hazard to the safety of persons;
- (2) The plan for soil erosion and sediment control is not adequate or effective;
- (3) Damage would occur to publicly owned lands or resources; or
- (4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

WW-6A
(8-13)

API NO. 47-051 - 0196480D
OPERATOR WELL NO. Ten High 1S-5HM
Well Pad Name: Ten High

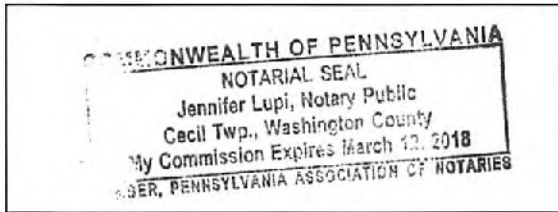
Notice is hereby given by:

Well Operator: Tug Hill Operating, LLC
Telephone: 724-749-8388
Email: amiller@tug-hilltop.com *amy miller*

Address: 380 Southpointe Blvd, Southpointe Plaza II, Suite 200
Canonsburg, PA 15317
Facsimile: 724-338-2030

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at deprivacyofficer@wv.gov.



Subscribed and sworn before me this 20th day of Dec., 2017.
Jennifer Lupi Notary Public
My Commission Expires March 12, 2018

Operator Well Nos. TEN HIGH 1S-5HM

WW-6A Notice of Application Attachment 1 of 1

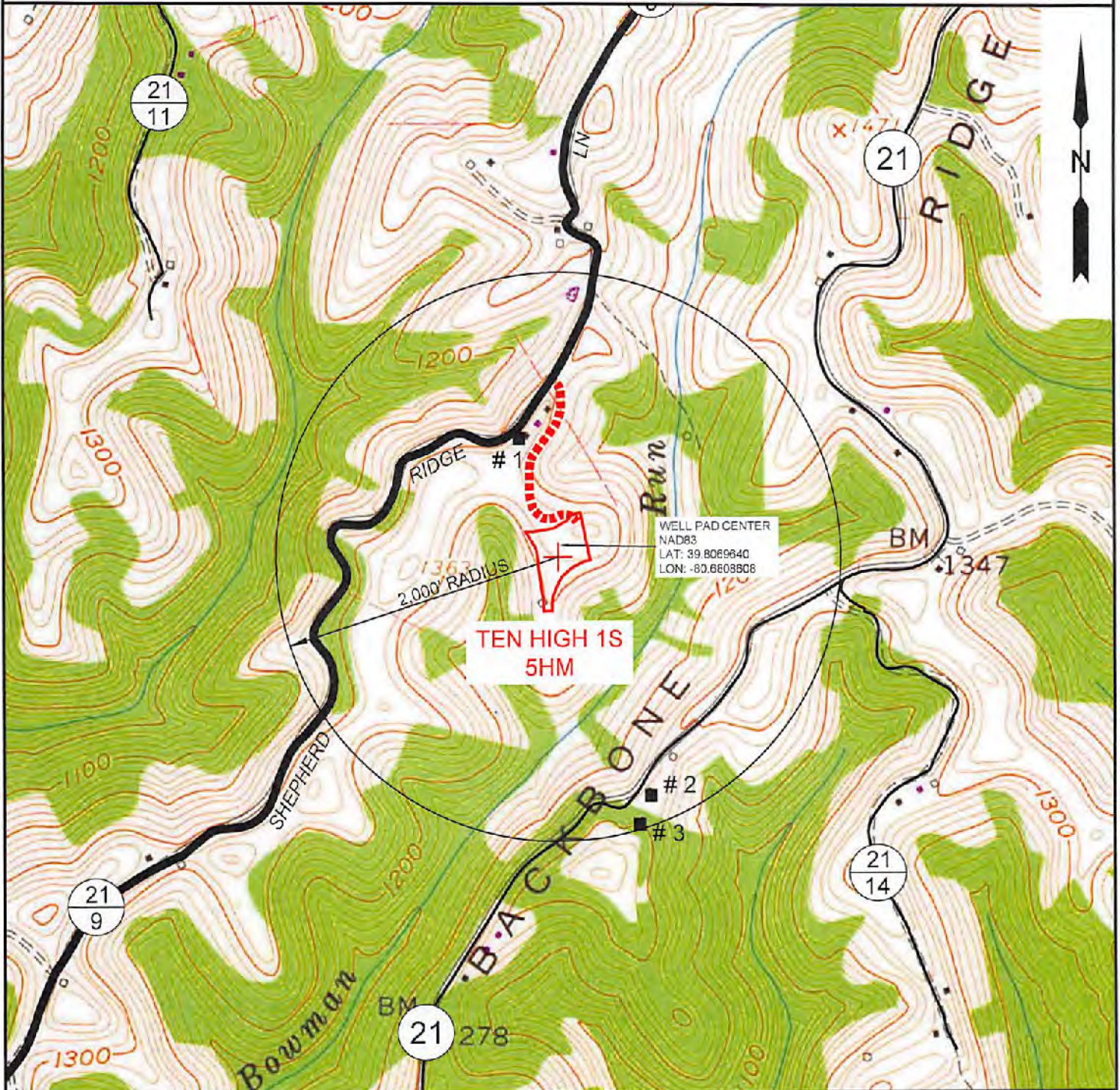
Surface Owner(s):

Name: Teresa Anne Hughes and Michael J.
Address: 252 Conkle Drive
Glen Easton, WV 26039

Brenda Joyce Whetzel
1863 Shepherds Ridge Lane
Glen Easton, WV 26039

Larry Lee Conkle and Donna D.
154 Conkle Drive
Glen Easton, WV 26039

PROPOSED TEN HIGH 1S - 5HM



NOTE: THERE APPEARS TO BE THREE (3) POSSIBLE WATER SOURCES WITHIN 2,000'.

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 160 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634
www.slsurveys.com

| | | | |
|------------------|----------|-------------------------|------------|
| TOPO SECTION: | | OPERATOR: | |
| GLEN EASTON 7.5' | | PREPARED FOR: | |
| COUNTY | DISTRICT | TUG HILL OPERATING, LLC | |
| MARSHALL | MEADE | 380 SOUTHPOINTE BLVD | |
| | | SUITE 200 | |
| | | CANONSBURG, PA 15317 | |
| DRAWN BY | JOB NO. | DATE | SCALE |
| K.G.M. | 8655 | 08-09-17 | 1" = 1000' |

TUG HILL
OPERATING

51-01964 MOD

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Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Brenda Joyce Whetzel
 1863 Shepherds Ridge Lane
 Glen Easton, WV 26039

Postmark Here
 USE PA 15350
 DEC 21 2017

7017 2400 0000 1188 5770

for instructions

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Estate of Lawrence & Shirley Conkle
 c/o Roy Conkle
 75 Arlington Avenue
 Moundsville, WV 26041

Postmark Here
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7017 2400 0000 1188 5763

for instructions

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Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Robert G. Hubbs & Scarlett E. Otte
 132 Shepherds Ridge Lane
 Glen Easton, WV 26039

Postmark Here
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7017 2400 0000 1188 5756

for instructions

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Teresa Anne & Michael J. Hughes
 252 Conkle Drive
 Glen Easton, WV 26039

Postmark Here
 USE PA 15350
 DEC 21 2017

7017 2400 0000 1188 5749

PS Form 3800, April 2015 PSN 7525-02-000-9047 See Reverse for Instructions

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Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Larry Lee & Donna D. Conkle
 154 Conkle Drive
 Glen Easton, WV 26039

Postmark Here
 USE PA 15350
 DEC 21 2017

7017 2400 0000 1188 5732

for instructions

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Murray Energy Corporation
 46226 National Road
 St. Clairsville, OH 43950

Postmark Here
 USE PA 15350
 DEC 21 2017

7017 2400 0000 1188 5767

for instructions

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Roy A. Conkle, Sr. & Lorie A. Conkle
 75 Arlington Avenue
 Moundsville, WV 26041

Postmark Here
 USE PA 15350
 DEC 21 2017

7017 2400 0000 1188 5794

for instructions

Ten High 1S-5HM, 6HM, 7HM, 8HM and 9HM

03/09/2018

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY**

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: December 9, 2016 **Date of Planned Entry:** December 20, 2016

Delivery method pursuant to West Virginia Code § 22-6A-10a

- PERSONAL SERVICE REGISTERED MAIL METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

SURFACE OWNER(s)

Name: ESTATE OF LAWRENCE & SHIRLEY MAE CONKLE c/o Roy Conkle
Address: 75 ARLINGTON AVENUE
MOUNDSVILLE, WV 26041
Name: ROY A CONKLE, SR.
Address: 75 ARLINGTON AVENUE
MOUNDSVILLE, WV 26041
Name: LARRY CONKLE
Address: 154 CONKLE DRIVE
GLEN EASTON, WV 26039 **SEE ATTACHED**

COAL OWNER OR LESSEE

Name: MURRAY ENERGY CORPORATION
Address: 46226 NATIONAL ROAD
ST. CLAIRSVILLE, OH 43950

MINERAL OWNER(s)

Name: ESTATE OF LAWRENCE & SHIRLEY MAE CONKLE c/o Roy Conkle
Address: 75 ARLINGTON AVENUE
MOUNDSVILLE, WV 26041 **SEE ATTACHED**

*please attach additional forms if necessary

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

| | |
|-------------------------------------|--|
| State: <u>WEST VIRGINIA</u> | Approx. Latitude & Longitude: <u>LAT 39.8067775 LONG -80.6809192</u> |
| County: <u>MARSHALL</u> | Public Road Access: <u>SHEPHERD RIDGE LANE (Co. RT. 21/9)</u> |
| District: <u>MEADE</u> | Watershed: <u>HUC-10 FISH CREEK</u> |
| Quadrangle: <u>GLEN EASTON 7.5'</u> | Generally used farm name: <u>LAWRENCE CONKLE, SR.</u> |

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

| | |
|---|--|
| Well Operator: <u>TUG HILL OPERATING, LLC</u> | Address: <u>360 SOUTHPOINTE BLVD., SOUTHPOINTE PLAZA II, SUITE 200</u> |
| Telephone: <u>(724) 749-8388</u> | <u>CANONSBURG, PA15317</u> |
| Email: <u>jwhite@tug-hill.com</u> | Facsimile: <u>(724) 398-2030</u> |

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

SI-01964
MOD

Operator Well No. TEN HIGH 1S-5HM

WW-6A3 Notice of Entry for Plat Survey Attachment 1 of 1

Surface Owner(s):

Name: Teresa Hughes
Address: 252 Conkle Drive
Glen Easton, WV 26039

Brenda Joyce Wetzel
RD 1, Box 79
Glen Easton, WV 26039

Surface Owner(s) Access Road:

Name: Robert G. Hubbs and Scarlett E. Otte
132 Sheperd Ridge Lane
Glen Easton, WV 26039

Mineral Owner(s):

Name: Roy A. Conkle, Sr.
75 Arlington Avenue
Moundsville, WV 26041

Larry Conkle
154 Conkle Drive
Glen Easton, WV 26039

Teresa Hughes
252 Conkle Drive
Glen Easton, WV 26039

Brenda Joyce Wetzel
RD 1, Box 79
Glen Easton, WV 26039

03/09/2018

SI-01964100

7016 2140 0000 9582 3446

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| | | |
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| Extra Services & Fees (check box, add fee as appropriate) | \$2.70 | |
| <input type="checkbox"/> Return Receipt (hardcopy) | \$0.00 | |
| <input type="checkbox"/> Return Receipt (electronic) | \$0.00 | |
| <input type="checkbox"/> Certified Mail Restricted Delivery | \$0.00 | |
| <input type="checkbox"/> Adult Signature Required | \$0.00 | |
| <input type="checkbox"/> Adult Signature Restricted Delivery | \$0.00 | |

Postage \$1.36

Total \$7.36

Postmark Here DEC 9 2016

Postage \$1.36

Total \$7.36

Send TO: BRENDA JOYCE WETZEL

Street RD 1 BOX 79

City GLEN EASTON WV 26039

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| <input type="checkbox"/> Return Receipt (electronic) | \$0.00 | |
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| <input type="checkbox"/> Adult Signature Required | \$0.00 | |
| <input type="checkbox"/> Adult Signature Restricted Delivery | \$0.00 | |

Postage \$1.36

Total \$7.36

Postmark Here DEC 9 2016

Postage \$1.36

Total \$7.36

Send TO: ROBERT G HUBBS AND SCARLETT E OTTE

Street 132 SHEPHERD RIDGE LANE

City GLEN EASTON WV 26039

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| <input type="checkbox"/> Return Receipt (hardcopy) | \$0.00 | |
| <input type="checkbox"/> Return Receipt (electronic) | \$0.00 | |
| <input type="checkbox"/> Certified Mail Restricted Delivery | \$0.00 | |
| <input type="checkbox"/> Adult Signature Required | \$0.00 | |
| <input type="checkbox"/> Adult Signature Restricted Delivery | \$0.00 | |

Postage \$1.36

Total \$7.36

Postmark Here DEC 9 2016

Postage \$1.36

Total \$7.36

Send TO: TERESA HUBBS

Street 252 CONKLE DRIVE

City GLEN EASTON WV 26039

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7016 2140 0000 9582 3462

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| <input type="checkbox"/> Return Receipt (hardcopy) | \$0.00 | |
| <input type="checkbox"/> Return Receipt (electronic) | \$0.00 | |
| <input type="checkbox"/> Certified Mail Restricted Delivery | \$0.00 | |
| <input type="checkbox"/> Adult Signature Required | \$0.00 | |
| <input type="checkbox"/> Adult Signature Restricted Delivery | \$0.00 | |

Postage \$1.36

Total \$7.36

Postmark Here DEC 9 2016

Postage \$1.36

Total \$7.36

Send TO: MURRAY WEBBY CORPORATION

Street 46226 NATIONAL ROAD

City ST CLAIRSVILLE OH 43950

PS Form 3800, April 2015 PSN 7526-214-9047 See Reverse for Instructions

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| <input type="checkbox"/> Return Receipt (hardcopy) | \$0.00 | |
| <input type="checkbox"/> Return Receipt (electronic) | \$0.00 | |
| <input type="checkbox"/> Certified Mail Restricted Delivery | \$0.00 | |
| <input type="checkbox"/> Adult Signature Required | \$0.00 | |
| <input type="checkbox"/> Adult Signature Restricted Delivery | \$0.00 | |

Postage \$1.36

Total \$7.36

Postmark Here DEC 9 2016

Postage \$1.36

Total \$7.36

Send TO: LARRY CONKLE SR

Street 1154 CONKLE DRIVE

City GLEN EASTON WV 26039

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MOUNDSVILLE WV 26041

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| <input type="checkbox"/> Return Receipt (hardcopy) | \$0.00 | |
| <input type="checkbox"/> Return Receipt (electronic) | \$0.00 | |
| <input type="checkbox"/> Certified Mail Restricted Delivery | \$0.00 | |
| <input type="checkbox"/> Adult Signature Required | \$0.00 | |
| <input type="checkbox"/> Adult Signature Restricted Delivery | \$0.00 | |

Postage \$1.36

Total \$7.36

Postmark Here DEC 9 2016

Postage \$1.36

Total \$7.36

Send TO: ROY CONKLE SR

Street 75 ARLINGTON AVENUE

City MOUNDSVILLE WV 26041

PS Form 3800, April 2015 PSN 7526-214-9047 See Reverse for Instructions

7016 2140 0000 9582 3417

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|--|--------|---------|
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| Extra Services & Fees (check box, add fee as appropriate) | \$2.70 | |
| <input type="checkbox"/> Return Receipt (hardcopy) | \$0.00 | |
| <input type="checkbox"/> Return Receipt (electronic) | \$0.00 | |
| <input type="checkbox"/> Certified Mail Restricted Delivery | \$0.00 | |
| <input type="checkbox"/> Adult Signature Required | \$0.00 | |
| <input type="checkbox"/> Adult Signature Restricted Delivery | \$0.00 | |

Postage \$1.36

Total \$7.36

Postmark Here DEC 9 2016

Postage \$1.36

Total \$7.36

Send TO: ESTATE OF LAWRENCE & SHIRLEY MAE CONKLE

Street c/o ROY CONKLE

Street 75 ARLINGTON AVENUE

City MOUNDSVILLE WV 26041

PS Form 3800, April 2015 PSN 7526-214-9047 See Reverse for Instructions

Certified Receipts for
WW-6A3
Ten High IS-SHM

03/09/2018

**STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION**

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 08/14/2017 **Date Permit Application Filed:** 08/18/2017

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

CERTIFIED MAIL HAND
RETURN RECEIPT REQUESTED DELIVERY

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Estate of Lawrence & Shirley Mae Conkle c/o Roy Conkle
Address: 75 Arlington Avenue
Moundsville, WV 26041

Name: Roy A. Conkle, Sr., and Loria A.
Address: 75 Arlington Avenue
Moundsville, WV 26041 ****See Attached****

Notice is hereby given:

Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

| | | | | |
|-------------|----------------------------|---------------------------|--|---------------------|
| State: | <u>West Virginia</u> | UTM NAD 83 | Easting: | <u>527,307.78</u> |
| County: | <u>Marshall</u> | | Northing: | <u>4,406,356.83</u> |
| District: | <u>Meade</u> | Public Road Access: | <u>Shepherd Ridge Lane (Co. Rt. 21/9)</u> | |
| Quadrangle: | <u>Glen Easton 7.5'</u> | Generally used farm name: | <u>LAWRENCE & SHIRLEY CONKLE, ESTS</u> | |
| Watershed: | <u>(HUC 10) Fish Creek</u> | | | |

This Notice Shall Include:

Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1) A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Tug Hill Operating, LLC
Telephone: 724-749-8388
Email: amiller@tug-hillcp.com

Address: 380 Southpointe Blvd, Southpointe Plaza II, Suite 200
Canonsburg, PA 15317
Facsimile: 724-338-2030

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

SI-01964
MOD

Operator Well Nos. TEN HIGH 1S-5HM

WW-6A5 Notice of Planned Operation Attachment 1 of 1

Surface Owner(s):

Name: Teresa Anne Hughes and Michael J.
Address: 252 Conkle Drive
Glen Easton, WV 26039

Brenda Joyce Whetzel
1863 Shepherds Ridge Lane
Glen Easton, WV 26039

Larry Lee Conkle and Donna D.
154 Conkle Drive
Glen Easton, WV 26039

Robert G. Hubbs and Scarlett E. Otte
132 Shepherds Ridge Lane
Glen Easton, WV 26039

03/09/2018

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 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$

Total \$ Larry Lee and Donna D. Conkle
 \$ 154 Conkle Drive
 \$ Glen Easton, WV 26039

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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 \$

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$

Total \$ Est. of Lawrence & Shirley Mae Conkle
 \$ C/O Roy Conkle
 \$ 75 Arlington Avenue
 \$ Moundsville, WV 26041

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$

Total \$ Murray Energy Corporation
 \$ Attn: Mr. Alex P. O'Neill
 \$ 46226 National Road
 \$ St. Clairsville, OH 43950

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7016 2140 0000 9582 3682



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Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$

Total \$ Teresa Anne and Michael J. Hughes
 \$ 252 Conkle Drive
 \$ Glen Easton, WV 26039

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$

Total \$ Thomas R. and Kimberly Whitfield
 \$ 1838 Sallys Backbone Road
 \$ Glen Easton, WV 26039

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7016 2140 0000 9582 3699



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Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$

Total \$ Robert G. Hubbs and Scarlett E. Otte
 \$ 132 Shepherds Ridge Lane
 \$ Glen Easton, WV 26039

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7016 2140 0000 9582 3651



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Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$

Total \$ Roy A. Conkle, Sr. and Lorie A. Conkle
 \$ 75 Arlington Avenue
 \$ Moundsville, WV 26041

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Return Receipt (hardcopy) \$
 Return Receipt (electronic) \$
 Certified Mail Restricted Delivery \$
 Adult Signature Required \$
 Adult Signature Restricted Delivery \$

Postage
 \$

Total \$ Brenda Joyce Whetzel
 \$ 1863 Shepherds Ridge Lane
 \$ Glen Easton, WV 26039

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7016 2140 0000 9582 3675



51-01964MOD



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Jim Justice
Governor

Thomas J. Smith, P. E.
Secretary of Transportation/
Commissioner of Highways

May 16, 2017

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

Subject: DOH Permit for the Ten High 1N Pad, Marshall County
Ten High 1S Unit-5HM Well site

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2017-0127 which has been issued to Tug Hill Operating, LLC for access to the State Road for a well site located off of Marshall County Route 21/9 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Jonathan White
Tug Hill Operating, LLC
CH, OM, D-6
File



PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION

Well No. Ten High 1S-5HM

| PRODUCT NAME: | CHEMICAL DESCRIPTION: | PRODUCT USE: | HAZARDOUS COMPONENT: |
|----------------------|----------------------------------|---------------------|--|
| GBW-20C | Hemicellulase Breaker | Breaker - Water | None |
| ALPHA 1427 | | Biocide | Glutaraldehyde – CAS#000111-30-8 Quaternary ammonium chloride CAS# 007173-51-5 Alky dimethyl benzyl ammonium Chloride (C12-16) – CAS#068424-85-1 Ethanol – CAS# 000064-17-5 Water – CAS# 007732-18-5 |
| FRAC SAND | Silica Sand (various Mesh sizes) | Proppant | Crystalline silica (quartz) CAS# 14808-60-7 |
| S-8C, Sand | Silica Sand (100 mesh) | Sand | Silica – CAS# 14808-60-7 |
| GW-3LDF | | Gellant - Water | Petroleum Distillate Blend – Proprietary, (Not Associated with Diesel Fuel) Guar gum – CAS# 009000-30-0 |
| FRW-18 | | Friction Reducer | Hydrotreated light distillate CAS# 064742-47-8 |
| Scaletrol | | Scale Inhibitor | Ethylene glycol – CAS# 000107-21-1 Diethylene glycol – CAS# 000111-46-6 |