

### west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary www.dep.wv.gov

Tuesday, December 3, 2019 WELL WORK PERMIT Horizontal 6A / New Drill

TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD

CANONSBURG, PA 15317

Permit approval for KNOB CREEK N-2HM Re:

47-051-02279-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless 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: KNOB CREEK N-2HM Farm Name: DAVID LEE FRANKLIN

U.S. WELL NUMBER: 47-051-02279-00-00

Horizontal 6A New Drill

Date Issued: 12/3/2019

| API Number: |  |
|-------------|--|
|             |  |

# PERMIT CONDITIONS 4705102279

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

| CO | ND | ITI | ON | S |
|----|----|-----|----|---|
|    |    |     |    |   |

- This proposed activity may require permit coverage from the United States Army Corps of Engineers
  (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed
  activity.
- 2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
- 3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.
- 4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.
- 5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled Water Well Regulations, 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.
- 6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.
- 7. 24 hours prior to the initiation of the completion process the operator shall notify the Chief or his designee.
- 8. During the completion process the operator shall monitor annular pressures and report any anomaly noticed to the chief or his designee immediately.
- 9. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.
- 10. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

| API Nun | abe | r: _ |   |   |   |   |   |   |   |   |  |
|---------|-----|------|---|---|---|---|---|---|---|---|--|
|         | 4   | 7    | 0 | 5 | 1 | 0 | 2 | 2 | 7 | 9 |  |

### **PERMIT CONDITIONS**

11. The operator shall provide to the Office of Oil and Gas the dates of each of the following within 30 days of their occurrence: completion of construction of the well pad, commencement of drilling, cessation of drilling, completion of any other permitted well work, and completion of the well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov.

WW-6B (04/15)

| API NO. 47-051      |                  |
|---------------------|------------------|
| OPERATOR WELL NO.   | Knob Creek N-2HM |
| Well Pad Name: Knob | Creek            |

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

| 1) Well Opera            | tor: Tug Hill (                     | Operating,            | , LLC   | 494510851                                | Marshall                           | Meade                           | Powhatan Point 7  |
|--------------------------|-------------------------------------|-----------------------|---------|--|------------------------------------|---------------------------------|---|
| ~) (1 +s- > <b>F</b> -s- |                                     |                       |         | Operator ID                              | County                             | District                        | Quadrangle  |
| 2) Operator's            | Well Number:                        | Knob Cree             | ek N-2H | M Well P                                 | ad Name: Kno                       | b Creek                         |   |
| 3) Farm Name             | e/Surface Owne                      | r: David L            | ee Fran | klin Public R                            | oad Access: St                     | t. Joseph R                     | oad - CR 21   |
| 4) Elevation, o          | current ground:                     | 734.67                | E       | levation, propose                        | d post-construc                    | ction: 734.6                    | 67'   |
| 5) Well Type             | (a) Gas X Other                     |                       | Oil _   | Un                                       | derground Stor                     | rage                            |   |
|                          |                                     | Shallow<br>Horizontal | X       | Deep                                     |                                    | 1                               | 119   |
| 6) Existing Pa           | d: Yes or No                        | All the second second |         |  | 2                                  | Mg/2                            | 711   |
|                          |                                     | , , ,                 |         | cipated Thickness                        | and Expected                       | - / /                           |   |
| 8) Proposed T            | otal Vertical De                    | epth: 634             | 3'      |  |                                    |                                 |   |
| 9) Formation a           | at Total Vertica                    | l Depth:              | Ononda  | ga                                       |                                    |                                 |   |
| 10) Proposed             | Total Measured                      | Depth:                | 7,552'  |  |                                    |                                 |   |
| 11) Proposed I           | Horizontal Leg                      | Length: 5             | 911.58' |  |                                    |                                 |   |
| 12) Approxim             | ate Fresh Water                     | r Strata De           | pths:   | 40'; 380'                                |                                    |                                 |   |
|                          | Determine Freate Saltwater D        |                       |         | Use shallow offset wells to determine de | epest freshwater, or determine usi | ng pre-drill tests, lesting whi | le drilling or petrophysical evaluation of resistivity. |
|                          |                                     |                       |         | / Coal - 292' and                        | Pittsburgh Co                      | oal - 374'                      | RECEIVED<br>Office of Oil and Gas                       |
|                          |                                     |                       |         | ine, karst, other):                      | GARANT                             |                                 | OCT - 2 2019  |
|                          | osed well locat<br>ving or adjacent |                       |         | Yes                                      | N                                  | No X                            | WV Department of<br>Environmental Protection            |
| (a) If Yes, pr           | ovide Mine Inf                      | o: Name:              |         |  |                                    |                                 |   |
|                          |                                     | Depth                 | :       |  |                                    |                                 |   |
|                          |                                     | Seam:                 |         |  |                                    |                                 |   |
|                          |                                     | Owner                 | r:      |  |                                    |                                 |   |

WW-6B (04/15) 4705102279

API NO. 47-051 -

OPERATOR WELL NO. Knob Creek N-2HM

Well Pad Name: Knob Creek

18)

### CASING AND TUBING PROGRAM

| ТҮРЕ         | Size<br>(in) | New<br>or<br>Used | <u>Grade</u> | Weight per ft. (lb/ft) | FOOTAGE: For Drilling (ft) | INTERVALS:<br>Left in Well<br>(ft) | CEMENT:<br>Fill-up<br>(Cu. Ft.)/CTS |
|--------------|--------------|-------------------|--------------|------------------------|----------------------------|------------------------------------|-------------------------------------|
| Conductor    | 30"          | NEW               | BW           | BW                     | 120'                       | 120'                               | 259ft^3(CTS)                        |
| Fresh Water  | 13 3/8"      | NEW               | J55          | 54.5#                  | 480'                       | 480'                               | 683ft^3(CTS)                        |
| Coal         | 13 3/8"      | NEW               | J55          | 54.5#                  | 480'                       | 480'                               | 683ft^3(CTS)                        |
| Intermediate | 9 5/8"       | NEW               | J55          | 36#                    | 2,252'                     | 2,252'                             | 729ft^3(CTS)                        |
| Production   | 5 1/2"       | NEW               | P110         | 20#                    | 7,552'                     | 7,552'                             | 1,951ft^3(CTS)                      |
| Tubing       | 2 3/8"       | NEW               | N80          | 4.7#                   | 6,274'                     |                                    |                                     |
| Liners       |              |                   |              |                        |                            |                                    |                                     |

mg/27/19

| TYPE         | Size (in) | Wellbore<br>Diameter (in) | Wall<br>Thickness<br>(in) | Burst Pressure (psi) | Anticipated Max. Internal Pressure (psi) | Cement<br>Type | Cement Yield (cu. ft./k) |
|--------------|-----------|---------------------------|---------------------------|----------------------|--|----------------|--------------------------|
| Conductor    | 30"       | 36"                       | 1.0                       | 2,333                | 1,866                                    | CLASS A        | 1.2                      |
| Fresh Water  | 13 3/8"   | 17.5"                     | .33                       | 2,740                | 2,192                                    | SEE #24        | 1.2                      |
| Coal         | 13 3/8"   | 17.5"                     | .33                       | 2,740                | 2,192                                    | 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                       | 8,960                | 11,200                                   |                |                          |
| Liners       |           |                           |                           |                      |  |                |                          |

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**PACKERS** 

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| Kind:       | N/A | WV Department of<br>Environmental Protection |
|-------------|-----|--|
| Sizes:      | N/A |  |
| Depths Set: | N/A |  |

OPERATOR WELL NO. Knob Creek N-2HM

Well Pad Name: Knob Creek

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

Drill through the Marcellus tagging less than 100' from the top of the Onondaga to get depths and log data. Plug back to proposed kick off point. Drill the horizontal section to planned and proposed TD. Run casing and cement to surface. Run Bond Log from app. 60 deg to surface. Make clean out run and stimulate.

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

Well to completed with approximately 2,277,500 lb. proppant and 35,212 barrels of water. Max rate = 80bpm; max psi = 9,000#.

- 21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 12.93 acres
- 22) Area to be disturbed for well pad only, less access road (acres): 5.55 acres
- 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 attachment

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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.

|  |                | Top of Cement  | Surface             | Surface        | Surface         | Surface    |               |                  |                   |                 | tance                            | ır Jt                        | urve; 1 every other )   |          |                              |   |                               |  | 7,552.7                               |  |  |  |   |  |              |
|--|----------------|----------------|---------------------|----------------|-----------------|------------|---------------|------------------|-------------------|-----------------|----------------------------------|------------------------------|---|----------|------------------------------|---|-------------------------------|--|---------------------------------------|--|--|--|---|--|--------------|
|  |                | Grade          | BW                  | 155            | 155             | CYHP110    |               | ETAILS           | Centralizer Notes | None            | 3 Centralizers at equal distance | 1 Centralizer every other jt | al; I per Joint in cu<br>sfc  |          | al; I per Joint in cu<br>sfc |   | al; I per joint in cui<br>sfc |  | al; I per joint in cu<br>sfc          |  |  |  | ~ |  | Lateral TD @ |
|  |                | Weight (lb/ft) | WB                  | 54.5           | 36              | 20         |               | DRILLING DETAILS |                   |                 | 3 Centr                          | 1 Cer                        | I every other joint in lateral; I per joint in curve; I every other Jt to |          |                              |   | De/21/19                      |  |                                       |  |  |  |   |  |              |
|  | ARY            | Depth (TVD)    | 120,                | 480'           | 2,250'          | 6,211      |               |                  | Fluid Type        | Air             | Air                              | Air                          | Air / SOBM 1  |          |                              | 0 | Po                            |  |                                       |  |  |  |   |  |              |
|  | CASING SUMMARY | Depth (MD)     | 120                 | 480′           | 2,252           | 7,552"     |               |                  | Density           | 15.6            | 15.6                             | 15                           | 14.5  |          |                              |   |                               |  |                                       |  |  |  |   |  |              |
|  |                | Csg Size (in)  | 30                  | 13 3/8         | 8/56            | 5.1/2      |               | ARY              | Class             | 4               | ٧                                | A                            | 4   |          |                              |   |                               |  |                                       |  |  |  |   |  |              |
|  |                | Hole Size (in) | 35                  | 17.5           | 12 1/4          | 87/8×83/4  |               | CEMENT SUMMARY   | Sacks             | 338             | 199                              | 797                          | 1,783   |          |                              |   |                               |  |                                       |  |  |  |   |  |              |
|  |                | Type           | Conductor           | Surface        | Intermediate 1  | Production |               |                  |                   | Conductor       | Surface                          | Intermediate 1               | Production  |          |                              |   |                               |  |                                       |  |  |  |   |  |              |
| Marshall   |                |                |                     |                |                 |            |               | L                |                   |                 |                                  |                              |   |          |                              |   |                               |  |                                       |  |  |  |   |  |              |
| GL Elev:   | Sc             | Depth TVD      | 380                 | 292            | 374             | 1687       | 2172          | 2435             | 5549              | 6061            | 6091                             | 6124                         | 6192  | 1770     | 6343                         |   |                               |  |                                       |  |  |  |   |  |              |
| WV<br>Meade<br>737.<br>7,552.<br>39,77000567<br>-80,70355741<br>-80,7039599        | FORMATION TOPS | Formation      | Deepest Fresh Water | Sewickley Coal | Pittsburgh Coal | Big Lime   | Welr          | Gordon           | Rhinestreet       | Geneseo/Burkett | Tully                            | Hamilton                     | Marcellus   | Onondaes | Pilot Hole Depth             |   |                               |  | RECEIVED<br>Office of Oil and         |  |  |  |   |  |              |
| STATE: DISTRICT: DIF Elev: TO: TH Lattude: TH Longitude: BH Laftude: BH Langitude: |                |                | De                  |                |                 |            |               |                  |                   | 9               |                                  |                              |   |          |                              |   |                               |  | OCT - 2 20                            |  |  |  |   |  |              |
| 220° TVD   |                |                | 480' TVD            |                |                 |            |               | 2,250° TVD       |                   |                 |                                  |                              |   |          |                              |   | 7774 ft MD                    |  | 6,640° ND / 6,2<br>W Onondaga Top     |  |  |  |   |  |              |
| 30° Cq @   |                | 13 3/8" Csg @  |                     |                |                 | -          | of the second | 2,252 MD / 2,2   |                   |                 |                                  |                              |   |          |                              |   | KOP @ 5,774                   |  | Landing Point @<br>PH TVD = 100' belc |  |  |  |   |  |              |



### Tug Hill Operating, LLC Casing and Cement Program

### Knob Creek N-2HM

### Casing

| String  | Grade                    | Bit Size                            | Depth (Measured)  | Cement Fill Up  |
|---------|--------------------------|-------------------------------------|---|---|
| 30"     | BW                       | 36"                                 | 120'  | CTS   |
| 13 3/8" | J55                      | 17 1/2"                             | 480'  | CTS   |
| 9 5/8"  | J55                      | 12 1/4"                             | 2,252'  | CTS   |
| 5 1/2"  | CYHP110                  | 8 7/8 x 8 3/4                       | 7,552'  | CTS   |
|         | 30"<br>13 3/8"<br>9 5/8" | 30" BW<br>13 3/8" J55<br>9 5/8" J55 | String         Grade         Bit Size           30"         BW         36"           13 3/8"         J55         17 1/2"           9 5/8"         J55         12 1/4" | String         Grade         Bit Size         Depth (Measured)           30"         BW         36"         120'           13 3/8"         J55         17 1/2"         480'           9 5/8"         J55         12 1/4"         2,252' |

### Cement

| Conductor: | Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Conductor Cement mixed at 15.6 ppg, Y=1.2 |
|------------|--|
|------------|--|

Surface: Premium NE-1 + 2% bwoc CaC12 + 46.5% Fresh Water – Surface Cement mixed at 15.6 ppg, Y=1.2

Intermediate: Premium NE-1 + 1% bwoc CaC12 + 46.5% Fresh Water – Intermediate Cement mixed at 15.6 ppg, Y=1.19

Kick Off Plug: Class H Cement + 1% CD-32 + .7% Sodium Metasilicate + .1% R-3 + .75 gal/100sk FP-13L - KOP Plug

50:50 Poz: Premium NE-1 + .1% bwoc ASA-301 + 60lb/sk ASCA-1 + .35% bwoc BA-10A + .25% bwoc MPA-170,

Production: 44 lb sack + .5% bwoc R-3 + .75 gals/100sk FP-13L - Production Cement mixed at 15.2ppg, Y = 1.19

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### Area of Review

### Sources of information to Support 35CSR8 - 5.11: 9.3 et seq.

Description of process to identify potential pathways for well communication during hydraulic fracturing activities.

### Data Sources Reviewed:

- 1. IHS Well Data service: Public nationwide data service that pulls directly from State agency Oil and Gas databases
- 2. Farm Maps
- 3. Topo Maps: Recent and older (contact WVGES)
- 4. Check with DPS

Contacted Devin Ducoeur 724-705-0444, dducoeur@dpslandservices.com DPS GIS (9/23/2019) to have him make maps of the wellbores with his information. DPS utilizes WVGES maps for their mapping seems it as the best publicly available. See attached map he provided.

### Request maps for:

- 1. Wellbore with IHS All Wells Layer
- 2. Map with Farm lines overlain and any well spots identified on Farm Maps
- 3. More recent (1970s vintage) topos and older topos

### Discussion with Phil Dinterman WVGES GIS Department (7/15/2016)

- . WVGES has plotted every well spot they have access to and are aware of with that contains a coordinate. 30000, 70000, and 90000 series wells are available via the WVGES online map. Some locations aren't great due to vintage and manipulation of maps through time
- 30000 series any well drilled prior to 1929 APIs were not assigned to original wells
- 70000 series Well spots pulled from old Farm line maps that the WVGES has access to
- RECEIVED office of Oil and Gas 90000 series - Any sources that the WVGES has access that shows a well spot but has no additional supporting information. DEP does not have 90000 series on their maps.
- There can be duplication between wells in the 3 series
- Phil indicated that other Operators are providing a screenshot of the WVGES map with their WV Department of Environmental Protection planned well and using that for permits

Permit well - Knob Creek N-2HM

Wells within 500' Buffer

Note: Well spots depicted on Area of Review map (page 3) are derived from State held coordinates. The spots may differ from those depicted on the Well Plat because the Plat locations represent actual field surveyed locations. Please refer to the Plat for surveyed well spots

Is this well "known or reasonably expected to penetrate a depth that could be within the range of Fracture propagation"? 1000' is max limit I would assign to Perforated Producing zones not wells that might be within in Operator Name Total Depth Fms perforated range of fracture propagation Comments Yes, existing Marcellus permit Proper casing and cement should prevent migration of fluids from new wellbore to 4705102267 Tug Hill Operating n/a existing wellbore Currently a permit Yes, existing Marcellus permit Proper casing and cement should prevent migration of fluids from new wellbore to 4705102032 Tug Hill Operating n/a n/a existing wellbore Currently a permit n/a No, existing Point Pleasant permit Proper casing and cement should prevent migration of fluids from new 4705102268 Tug Hill Operating n/a n/a wellbore to existing wellbore n/a Currently a permit No, existing Point Pleasant permit Proper casing and cement should prevent migration of fluids from new 4705102269 Tug Hill Operating n/a n/a wellbore to existing wellbore n/a Currently a permit

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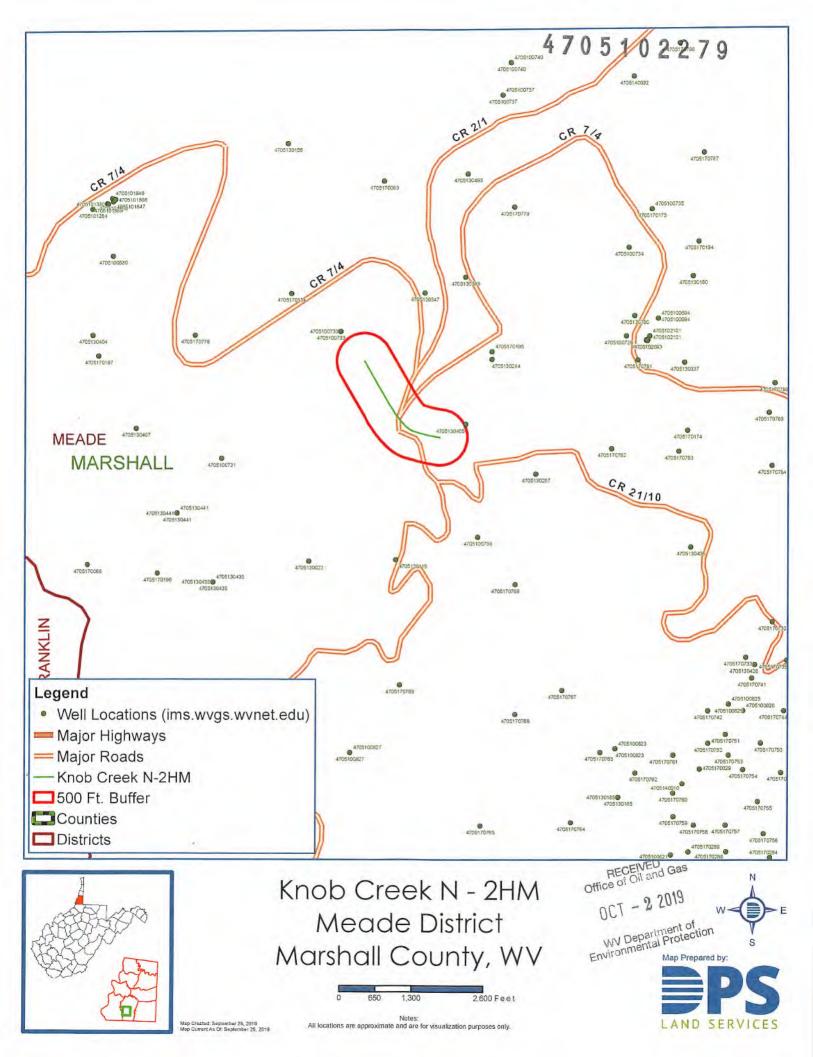
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API Number 47 - 051

Operator's Well No. Knob Creek N-2HM

# 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 comwill a pit be used? Yes No V  | nplete the proposed well work? Yes V No   |
| If so, please describe anticipated pit waste:AST Tank   | ks 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 contain.   |
| Proposed Disposal Method For Treated Pit Wastes:  |   |
| Land Application Underground Injection (UIC Pern Reuse (at API Number Off Site Disposal (Supply form W Other (Explain   | mit NumberUIC 2459, UIC 965, UIC 359, UIC 2D0732540, UIC 2D0732523 ) (W-9 for disposal location)  |
| Will closed loop system be used? If so, describe: Yes - For \   | Vertical and Horizontal Drilling  |
| Drilling medium anticipated for this well (vertical and horizon   | ntal)? 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, remove  | ed offsite, etc. All drill cuttings to be disposed of in a Landfill   |
| -If left in pit and plan to solidify what medium will b   | pe used? (cement, lime, sawdust) N/A  |
| -Landfill or offsite name/permit number? Wetzel County St   | anitary Landfil (SWF-1021 / WV0105165) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP EC#1385426)                                |
|   | Gas of any load of drill cuttings or associated waste rejected at any ed within 24 hours of rejection and the permittee shall also disclose |
| on August 1, 2005, by the Office of Oil and Gas of the West V provisions of the permit are enforceable by law. Violations law or regulation can lead to enforcement action.  I certify under penalty of law that I have personal application form and all attachments thereto and that, bas obtaining the information, I believe that the information is penalties for submitting false information, including the possi  Company Official Signature  Company Official (Typed Name) Jim Pancake | Office of Oil and Cas  OCT - 2 2019   |
| Company Official Title VP Geosciences   | WV Department of Environmental Protection   |
| Subscribed and sworn before me this 20 day of My commission expires   | Notary Publicommonwealth of Pennsylvania - Notary Seal  |

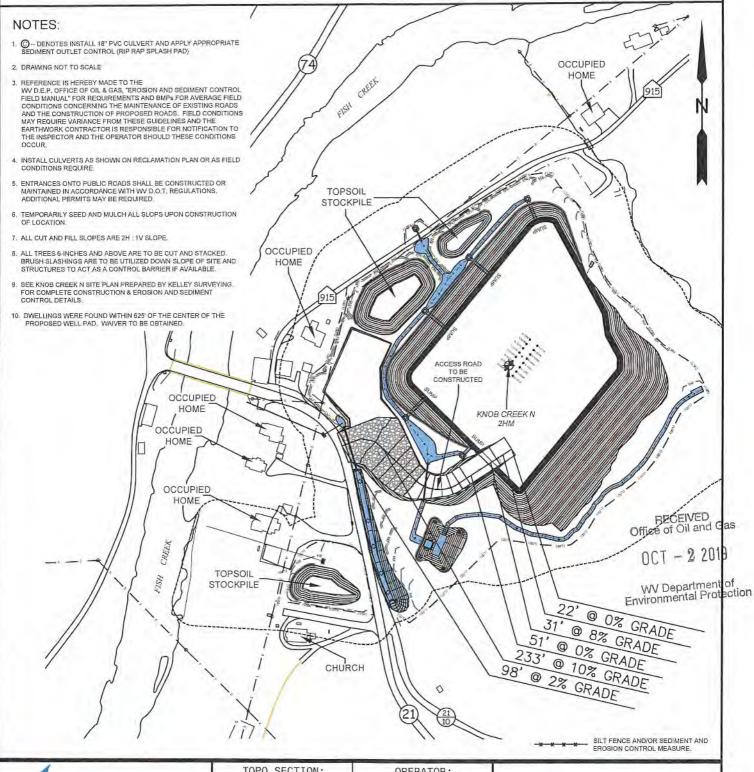
Operator's Well No. Knob Creek N-2HM

| Proposed Revegetation Treatme  | nt: Acres Disturbed 1                                  | 2.93 Prevegetation pH   | 6.0   |
|--|--|---|---|
|  | Tons/acre or to corre                                  |   |   |
| Fertilizer type 10-20-   |  |   |   |
| Fertilizer amount 500  |  | lbs/acre  |   |
| Mulch 2.5  |  | _Tons/acre  |   |
|  |  | Seed Mixtures   |   |
| Temp   | orary  | Perma   | nent  |
| 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 an provided). If water from the pit acreage, of the land application of   | will be land applied, incarea.                         | d application (unless engineered plans includ<br>clude dimensions (L x W x D) of the pit, and | ing this info have b<br>dimensions (L x W   |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application of involved  | will be land applied, incarea. 7.5' topographic sheet. | clude dimensions (L x W x D) of the pit, and  | ing this info have be<br>dimensions (L x W) |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application approved by: | will be land applied, incarea.                         | clude dimensions (L x W x D) of the pit, and  | ing this info have be<br>dimensions (L x W) |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application of involved  | will be land applied, incarea. 7.5' topographic sheet. | clude dimensions (L x W x D) of the pit, and  | ing this info have be<br>dimensions (L x W) |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application of the land application application of the land application application application of the land application approved by: | will be land applied, incarea. 7.5' topographic sheet. | clude dimensions (L x W x D) of the pit, and  | ing this info have be<br>dimensions (L x W) |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application approved by: | will be land applied, incarea. 7.5' topographic sheet. | clude dimensions (L x W x D) of the pit, and  | ing this info have be                       |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application approved by: | will be land applied, incarea. 7.5' topographic sheet. | clude dimensions (L x W x D) of the pit, and  | ing this info have be                       |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application approved by: | will be land applied, incarea. 7.5' topographic sheet. | clude dimensions (L x W x D) of the pit, and  | ing this info have be<br>dimensions (L x W) |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application approved by: | will be land applied, incarea. 7.5' topographic sheet. | clude dimensions (L x W x D) of the pit, and  | ing this info have be<br>dimensions (L x W) |
| Maps(s) of road, location, pit an provided). If water from the pit acreage, of the land application application approved by: | will be land applied, incarea. 7.5' topographic sheet. | clude dimensions (L x W x D) of the pit, and  | ing this info have be dimensions (L x W)    |

WW-9

### PROPOSED KNOB CREEK N - 2HM

SUPPLEMENT PG. 1





| TOPO SE  | CTION:    | OPERAT                          | OR:        |
|----------|-----------|---------------------------------|------------|
| GLEN EAS | STON 7.5' | PREPARED FOR:<br>TUG HILL OPERA | ATING, LLC |
| COUNTY   | DISTRICT  | 380 SOUTHPOIN                   | E BLVD     |
| MARSHALL | MEADE     | SUITE 200<br>CANONSBURG, F      | A 15317    |
| DRAWN BY | JOB NO.   | DATE                            | SCALE      |
| K.G.M.   | 8789      | 07/27/2018                      | NONE       |





### Well Site Safety Plan

Tug Hill Operating, LLC

Well Name: Knob Creek N-2HM

Pad Location: Knob Creek Pad

Marshall County, West Virginia

UTM (meters), NAD83, Zone 17:

Northing: 4,402,272.06

Easting: 525,217.67 RECEIVED Office of Oil and Gas

OCT - 2 2019

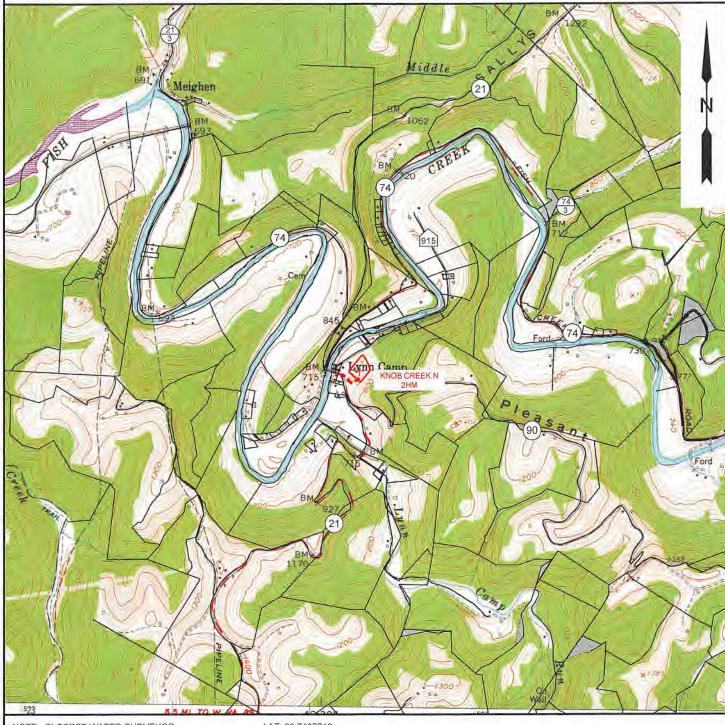
WV Department of Environmental Protection

September 2019

WW-9

### PROPOSED KNOB CREEK N - 2HM

SUPPLEMENT PG. 2



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

LAT: 39.7137712 LON: -80.8258327

LOCATED: S 59°36'12" W AT 39,574.55' FROM THE CENTER OF KNOB CREEK N WELL PAD LOCATION.



| Land | 8   | Energy      | Devel      | opment |
|------|-----|-------------|------------|--------|
|      | 501 | utions from | the around | d up.  |

P.O. Box 150 •12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634 www.sissurveys.com

| TOPO SI  | ECTION:   | OPER                    | ATOR:      |
|----------|-----------|-------------------------|------------|
| GLEN EAS | STON 7.5' | PREPARED FOR            |            |
| COUNTY   | DISTRICT  | 380 SOUTHPOI            | NTE BLVD   |
| MARSHALL | MEADE     | SUITE 200<br>CANONSBURG | , PA 15317 |
| DRAWN BY | JOB NO.   | DATE                    | SCALE      |
| K.G.M.   | 8789      | 07/27/2018              | 1" - 2000' |



80°40'00" 80°42'30"

LONGITUDE LONGITUDE

T.H. B.H.

B.H.

### NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS > 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD. SEE REFERENCES FOR DWELLINGS LOCATED WITHIN 625' OF THE CENTER OF PROPOSED WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.

REFERENCES

5/8" REBAR

WILL PAD.
WELL SPOT CIRCLE & TOPO MARK SCALE IS
1"=2000'.
BASED ON WY DOT COUNTY ROUTE 74 IS A 40'
STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.

915

14-33 FIELD

CENTER OF PROPOSED WELL PAD

KNOB CREEK N 2HM

FIELD

1" = 400'

T.H. LATITUDE 39°47'30' B.H. LATITUDE 39°47'30'

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH) E. 1,629,646.16

NAD'83 S.P.C.(FT) N. 464,848.89

NAD'83 GEO. LAT-(N) 39.770006 LONG-(W) 80.705557 N. 4,402,272.06 NAD'83 UTM (M)

E. 525,217.67

LANDING POINT NAD'83 S.P.C.(FT) N. 465,442.4

E. 1,628,749.9 LONG-(W) 80.708774

LAT-(N) 39.771602 NAD'83 UTM (M) N. 4,402,448.3 E. 524,941.6

BOTTOM HOLE E. 1,628,304.7

NAD'83 S.P.C.(FT) NAD'83 GEO.

NAD'83 UTM (M)

NAD'83 GEO.

N. 466,237.8 LAT-(N) 39.773769 N. 4.402.688.4

LONG-(W) 80.710396

E. 524.801.9

| AP/PARCEL | ADJOINING SURFACE OWNER LIST              | ACRES          |
|-----------|---|----------------|
| 9-6-1.2   | CONSOLIDATION COAL COMPANY, MURRAY ENERGY | 2,222          |
| 9-6-3.1   | CONSOLIDATION COAL COMPANY, MURRAY ENERGY | 10,00          |
| 9-10-7    | DAVID & PAMELA SCHIMMEL                   | 1.00           |
| 9-10-8    | BRENT ALLEN CONNER                        | 2.00           |
| 9-10-14   | WILLIAM MCCONNELL                         | 15.00          |
| 9-10-16   | WILLIAM D. MCCONNELL                      | 0.859          |
| 9-11-1    | GERALD F. PADLOW                          | 1.033          |
| 9-11-2.1  | KENNETH P. GATEWOOD, ET UX                | 0.308          |
| 9-11-2.2  | GERALD PADLOW, ET UX                      | 0.291          |
| 9-13-9    | ARTHUR L. MOORE                           | 50 X 100 SQ.FT |
| 9-13-10   | ARTHUR L. MOORE                           | 3.96           |
| 0.12-12.1 | DODERTT & BARRADA & AMEROM                | 2 (22          |

8.88

5/8" REBAR

Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanham Drive • Glenville, WV 26351 • (304) 462-5634

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 849 No. 849
STATE OF
STATE OF STAT

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS. JULY 27 DATE\_ , 20 \_ 18

REVISED SEPTEMBER 30 , 20 \_ 19 OPERATORS WELL NO. KNOB CREEK N-2HM

API WELL

STATE

051 COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY

14-33

16-15 16-14

1/2500

FILE NO. 8789P2HMR.dwg

KNOB CREEK N-2HM REV3

1" = 2000"

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



GLEN EASTON 7.5'

HORIZONTAL & VERTICAL DGPS (SURVEY GRADE TIE TO CORS NETWORK) CONTROL DETERMINED BY

LIQUID WASTE IF WELL OIL GAS X INJECTION\_ "GAS" PRODUCTION X STORAGE DEEP DISPOSAL TYPE: LOCATION: GROUND = 734.20'

PROPOSED = 734.67' \_ WATERSHED\_\_\_\_FISH CREEK (HUC 10) **ELEVATION** DISTRICT MEADE MARSHALL QUADRANGLE \_\_

COUNTY SURFACE OWNER \_ DAVID LEE FRANKLIN

DAVID LEE FRANKLIN, ET AL - SEE WW-6A1 ROYALTY OWNER . PROPOSED WORK:

SEE WW-6A1 LEASE NO. \_ \_ REDRILL \_\_ \_\_\_ FRACTURE OR STIMULATE \_\_\_X\_\_ PLUG OFF OLD

DRILL X CONVERT \_ \_ DRILL DEEPER \_\_\_ FORMATION\_ PERFORATE NEW FORMATION \_\_\_\_ PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG\_\_\_ \_ OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) TARGET FORMATION \_ MARCELLUS ESTIMATED DEPTH\_\_TVD: 6,343' / TMD: 7,552

WELL OPERATOR TUG HILL OPERATING, LLC

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500

FORT WORTH, TX 76107

DESIGNATED AGENT

DIANNA STAMPER CT CORPORATION SYSTEM

ERMIT

COUNTY

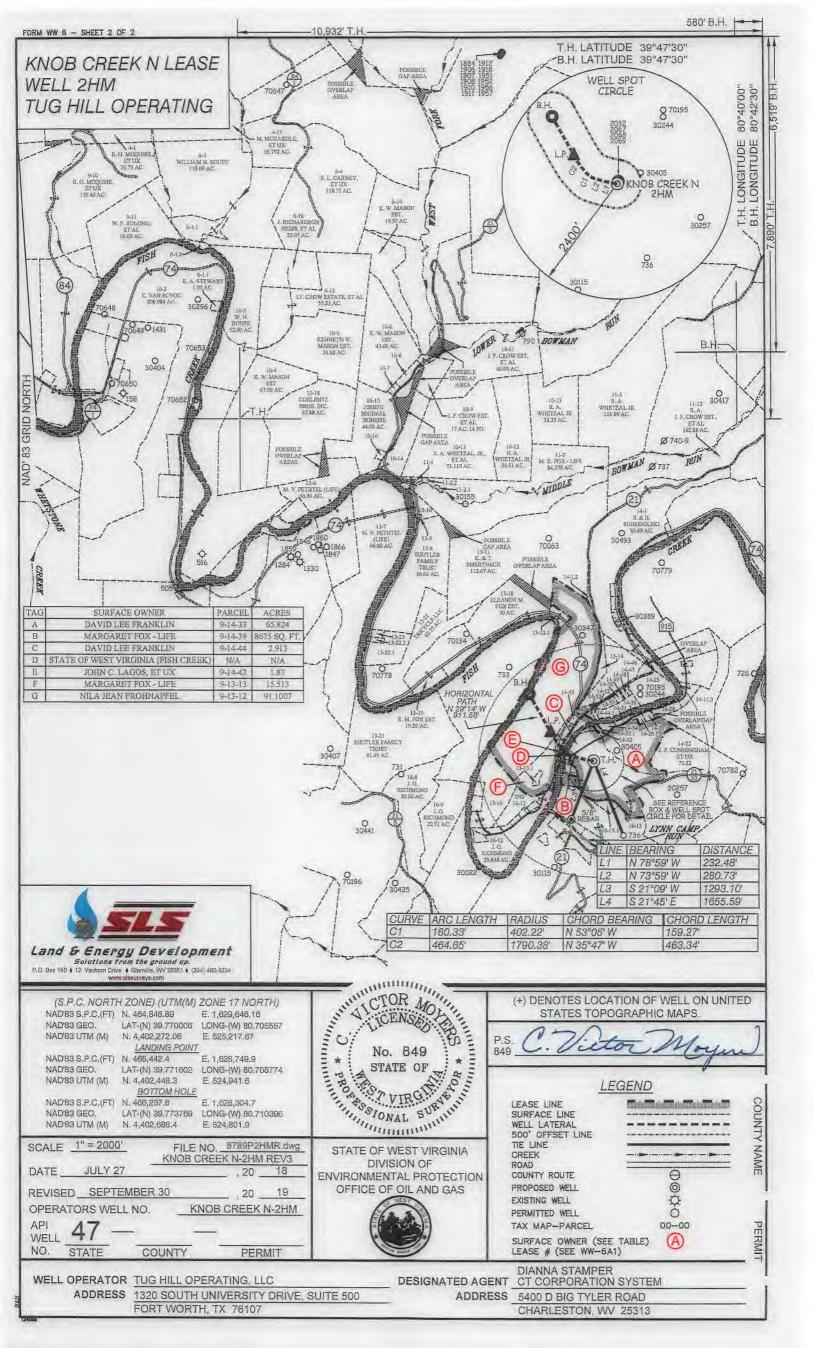
NAME

ADDRESS 5400 D BIG TYLER ROAD

ACREAGE \_

ACREAGE \_

CHARLESTON, WV 25313



| WW-6A1 |
|--------|
| (5/13) |

| Knob Creek N-2HM |
|------------------|
|                  |

### 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:

| ease 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 My Shalle                   |  |
| Its:           | Permitting Specialist - Appalachia Region |  |

# 4 7 0 5 1 0 2 2 7 9 Operator's Well No. Knob Creek N - 2HM

# WW-6A1 Supplement

| Lease ID       | Parcel     | Tags | Grantor, Lessor, Etc.   | Grantee, Lessee, Etc. | Royalty | Deed Book/Page | k/Page | Assignment |
|----------------|------------|------|---|-----------------------|---------|----------------|--------|------------|
| 10*47051.219.1 | 9-14-33    | A    | DAVID LEE FRANKLIN  | TH EXPLORATION LLC    | 1/8+    | 874            | 312    | N/A        |
| 10*47051.219.1 | 9-14-39    | 8    | DAVID LEE FRANKLIN  | TH EXPLORATION LLC    | 1/8+    | 937            | 385    | N/A        |
| 10*47051.219.1 | 9-14-44    | ပ    | DAVID LEE FRANKLIN  | TH EXPLORATION LLC    | 1/8+    | 937            | 385    | N/A        |
| 10*23458       | FISH CREEK | ٥    | WEST VIRGINIA DIVISION OF NATURAL RESOURCES                     | TH EXPLORATION LLC    | 1/8+    | 1019           | 373    | N/A        |
| 10*19538       | 9-14-42    | ш    | JOHN C LAGOS AND CYNTHIA M LAGOS                                | TH EXPLORATION LLC    | 1/8+    | 986            | 531    | N/A        |
| 10*18732       | 9-13-13    | ъ    | SHERRILL M LEAVERS AND JAMES H LEAVERS                          | TH EXPLORATION LLC    | 1/8+    | 886            | 245    | N/A        |
| 10*18734       | 9-13-13    | ш    | KENNETH EMERY AND MARTHA L EMERY                                | TH EXPLORATION LLC    | 1/8+    | 826            | 247    | N/A        |
| 10*18735       | 9-13-13    | Ł    | DIANE E AND DENNIS P FOWLER                                     | TH EXPLORATION LLC    | 1/8+    | 886            | 243    | N/A        |
| 10*18736       | 9-13-13    | L    | DOROTHY JEAN HUSTON AND KENNETH HUSTON                          | TH EXPLORATION LLC    | 1/8+    | 826            | 221    | N/A        |
| 10*19401       | 9-13-13    | L    | JOYCE A WILSON AND D MURPHY WILSON                              | TH EXPLORATION LLC    | 1/8+    | 940            | 346    | N/A        |
| 10*19402       | 9-13-13    | L    | HOWARD G AND CLARA J RICHMOND                                   | TH EXPLORATION LLC    | 1/8+    | 940            | 348    | N/A        |
| 10*19474       | 9-13-13    | L    | EDGAR ALLEN RICHMOND  | TH EXPLORATION LLC    | 1/8+    | 941            | 318    | N/A        |
| 10*19475       | 9-13-13    | ш    | ARDETH L PIPER AND PAUL E PIPER                                 | TH EXPLORATION LLC    | 1/8+    | 941            | 316    | N/A        |
| 10*19481       | 9-13-13    | ı    | WILLIAM EMERY   | TH EXPLORATION LLC    | 1/8+    | 941            | 314    | N/A        |
| 10*19674       | 9-13-13    | L    | DEBRA SHORT AND RODNEY SHORT                                    | TH EXPLORATION LLC    | 1/8+    | 944            | 337    | N/A        |
| 10*19675       | 9-13-13    | L    | BARBARA C LEISHMAN AND DANNY K LEISHMAN                         | TH EXPLORATION LLC    | 1/8+    | 944            | 432    | N/A        |
| 10*19714       | 9-13-13    | ш    | DAVID A ROBINSON AND PATRICIA A ROBINSON                        | TH EXPLORATION LLC    | 1/8+    | 944            | 434    | N/A        |
| 10*19868       | 9-13-13    | L    | TERRI J STREAM AND JOHN T STREAM                                | TH EXPLORATION LLC    | 1/8+    | 945            | 580    | N/A        |
| 10*19869       | 9-13-13    | ш    | SHIRLEY J DUFFY   | TH EXPLORATION LLC    | 1/8+    | 945            | 578    | N/A        |
| 10*19870       | 9-13-13    | ш    | DORIS L MASTERS AND ROY N MASTERS                               | TH EXPLORATION LLC    | 1/8+    | 945            | 576    | N/A        |
| 10*21027       | 9-13-13    | ш    | MARY D LING   | TH EXPLORATION LLC    | 1/8+    | 951            | 126    | N/A        |
| 10*21087       | 9-13-13    | щ    | THOMAS E DODD AND ANITA M DODD                                  | TH EXPLORATION LLC    | 1/8+    | 951            | 124    | N/A        |
| 10*21088       | 9-13-13    | ш    | DONALD E WEST AND MARTHA E WEST                                 | TH EXPLORATION LLC    | 1/8+    | 951            | 122    | N/A        |
| 10*21104       | 9-13-13    | щ    | LARRY W BAILEY AND MARSHA K BAILEY                              | TH EXPLORATION LLC    | 1/8+    | 951            | 131    | N/A        |
| 10*21105       | 9-13-13    | ш    | THE CALVIN O WILLIAMS & PATSY S WILLIAMS REVOCABLE LIVING TRUST | TH EXPLORATION LLC    | 1/8+    | 951            | 137    | N/A        |
| 10*21107       | 9-13-13    | ш    | RONALD L WEST   | TH EXPLORATION LLC    | 1/8+    | 951            | 135    | N/A        |
| 10*21108       | 9-13-13    | ч    | SANDRA A WHITE  | TH EXPLORATION LLC    | 1/8+    | 951            | 140    | N/A        |
| 10*21491       | 9-13-13    | F    | DARLENA BRY AND LEE V BRY                                       | TH EXPLORATION LLC    | 1/8+    | 957            | 290    | N/A        |
| 10*21507       | 9-13-13    | Ŧ    | DONALD FURLONG AND LISA K FURLONG                               | TH EXPLORATION LLC    | 1/8+    | 951            | 128    | N/A        |
| 10*21838       | 9-13-13    | ш    | FIRST PRESBYTERIAN CHURCH OF CLARKSBURG                         | TH EXPLORATION LLC    | 1/8+    | 959            | 625    | N/A        |
| 10*21956       | 9-13-13    | ш    | THEODORE F MASLOWSKI AND ANITA MASLOWSKI                        | TH EXPLORATION LLC    | 1/8+    | 096            | 13     | N/A        |
| 10*21963       | 9-13-13    | ш    | LINDA R JANSSEN AND DENNIS D JANSSEN                            | TH EXPLORATION LLC    | 1/8+    | 096            | 28     | N/A        |
| 10*21964       | 9-13-13    | ᄔ    | WILLIAM R DODD AND SHIRLEY A DODD                               | TH EXPLORATION LLC    | 1/8+    | 096            | 30     | N/A        |
| 10*21983       | 9-13-13    | ш    | OPAL V BUCKMASTER   | TH EXPLORATION LLC    | 1/8+    | 953            | 497    | N/A        |
| 10*22113       | 9-13-13    | ш.   | SYLVIA D WEST   | TH EXPLORATION LLC    | 1/8+    | 962            | 224    | N/A        |
| 10*22117       | 9-13-13    | ш    | DEBORAH L WROBEL AND GREGORY G WROBEL                           | TH EXPLORATION LLC    | 1/8+    | 961            | 354    | N/A        |
| 10*22119       | 9-13-13    | ц.   | JAMES S RICHMOND  | TH EXPLORATION LLC    | 1/8+    | 953            | 499    | N/A        |

# WW-6A1 Supplement

| Lease ID | Parcel  | Tags | Grantor, Lessor, Etc.   | Grantee, Lessee, Etc. | Royalty | Deed Book/Page | //Page | Assignment |
|----------|---------|------|---|-----------------------|---------|----------------|--------|------------|
| 10*22121 | 9-13-13 | ш    | VICKI ANN WILLIAMS & WILLIAM J WILLIAMS                                   | TH EXPLORATION LLC    | 1/8+    | 961            | 352    | N/A        |
| 10*22377 | 9-13-13 | ш    | MONTY W BAILEY AND MARTHA E BAILEY  | TH EXPLORATION LLC    | 1/8+    | 362            | 226    | N/A        |
| 10*22378 | 9-13-13 | ш    | KEVIN R RICHMOND AND VALERIE L RICHMOND                                   | TH EXPLORATION LLC    | 1/8+    | 362            | 228    | N/A        |
| 10*22458 | 9-13-13 | ш    | JAMES RICHMOND AND CINDY L RICHMOND                                       | TH EXPLORATION LLC    | 1/8+    | 696            | 132    | N/A        |
| 10*22463 | 9-13-13 | ш    | STEVEN R MCCLINTOCK   | TH EXPLORATION LLC    | 1/8+    | 964            | 458    | N/A        |
| 10*22517 | 9-13-13 | ш    | PHYLLIS M RADER   | TH EXPLORATION LLC    | 1/8+    | 964            | 456    | N/A        |
| 10*22545 | 9-13-13 | ш    | JANICE L MASLOWSKI AND FLOYD F MECHLING                                   | TH EXPLORATION LLC    | 1/8+    | 896            | 6      | N/A        |
| 10*23140 | 9-13-13 | ш    | MELISSA JENKINS   | TH EXPLORATION LLC    | 1/8+    | 984            | 98     | N/A        |
| 10*23144 | 9-13-13 | ш    | MARGARET A WALTERS  | TH EXPLORATION LLC    | 1/8+    | 984            | 84     | N/A        |
| 10*23145 | 9-13-13 | ட    | WILLIAM BENNETT   | TH EXPLORATION LLC    | 1/8+    | 984            | 82     | N/A        |
| 10*23146 | 9-13-13 | ш    | RETA I GRIFFIN AND MARTIN A GRIFFIN                                       | TH EXPLORATION LLC    | 1/8+    | 984            | 80     | N/A        |
| 10*23154 | 9-13-13 | ш    | CAROLYN FAY BENNETT   | TH EXPLORATION LLC    | 1/8+    | 984            | 78     | N/A        |
| 10*23188 | 9-13-13 | ш    | LISA MCMANUS  | TH EXPLORATION LLC    | 1/8+    | 984            | 530    | N/A        |
| 10*23299 | 9-13-13 | ш    | PATRICIA L BECK   | TH EXPLORATION LLC    | 1/8+    | 886            | 19     | N/A        |
| 10*23312 | 9-13-13 | щ    | DONNA M CARTER  | TH EXPLORATION LLC    | 1/8+    | 886            | 17     | N/A        |
| 10*23559 | 9-13-13 | ட    | ROBERT TOOMBS WRIGHT MONTAGUE BY DAVID C WHITE, ESQ, GUARDIAN AT LITEM    | TH EXPLORATION LLC    | 1/8+    | 1009           | 249    | N/A        |
| 10*23577 | 9-13-13 | u.   | JOHN WILLIAM MACKENZIE MONTAGUE BY DAVID C WHITE, ESO, GUARDIAN AD LITEM  | TH EXPLORATION LLC    | 1/8+    | 1009           | 253    | N/A        |
| 10*23578 | 9-13-13 | L    | DUDLEY PORTER THAYER MONTAGUE JR BY DAVID C WHITE, ESQ, GUARDIAN AD LITEM | TH EXPLORATION LLC    | 1/8+    | 1009           | 251    | N/A        |
| 10*24739 | 9-13-13 | ш    | RICARDO THOMAS MAYA   | TH EXPLORATION LLC    | 1/8+    | 1025           | 611    | N/A        |
| 10*25442 | 9-13-13 | ш    | SARAH BETH PREWITT ET AL  | TH EXPLORATION LLC    | 1/8+    | 1033           | 297    | N/A        |
| 10*24858 | 9-13-12 | 9    | NILA JEAN FROHNAPFEL  | TH EXPLORATION LLC    | 1/8+    | 1028           | 119    | N/A        |



October 1, 2019

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

RE: Knob Creek N-2HM

Subject: CR 21, 74 and 915 Road Crossing Letter

RECEIVED Office of Oil and Gas

OCT - 2 2019

WV Department of Environmental Protection

### 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, 74 and 915 in the area reflected on the Knob Creek N-2HM 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-hillop.com.

Sincerely,

Amy Miller

Permit Specialist – Appalachia Region

Cell 304-376-0111

Email: amiller@tug-hillop.com

WW-6AC (1/12)

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

| Date of Notic  | ce Certification: 10/01/2019   | API No. 4  |  |
|--|--|--|--|
|  |  | Operator's   | s Well No. Knob Creek N-2HM  |
|  |  | Well Pad I   | Name: Knob Creek   |
| Notice has l   | oeen given:  |  |  |
|  |  | § 22-6A, the Operator has provided the re-   | quired parties with the Notice Forms liste   |
|  | tract of land as follows:  |  | 22.70.704  |
| State:   | West Virginia  | UTM NAD 83 Easting:  | 525,217.67   |
| County:  | Marshall   | Nortning:  | 4,402,272.06   |
| District:  | Meade  | Public Road Access:  | St. Joseph Road - CR 21  |
| Quadrangle:  | Glen Easton 7.5'   | Generally used farm name:  | David Lee Franklin   |
| Watershed:   | Fish Creek (HUC 10)  |  |  |
| information r<br>of giving the<br>requirements<br>Virginia Cod | equired by subsections (b) and (c), so<br>surface owner notice of entry to so<br>of subsection (b), section sixteen of | bed in subdivisions (1), (2) and (4), sub<br>ection sixteen of this article; (ii) that the re-<br>urvey pursuant to subsection (a), section<br>of this article were waived in writing by<br>tender proof of and certify to the secretary<br>int. | equirement was deemed satisfied as a resten of this article six-a; or (iii) the notithe surface owner; and Pursuant to W |
| that the Ope   | West Virginia Code § 22-6A, the Operator has properly served the require ECK ALL THAT APPLY                            | perator has attached proof to this Notice Cod parties with the following:  | OOG OFFICE USE ONLY  |
| ☐ 1. NO  | TICE OF SEISMIC ACTIVITY or  | ■ NOTICE NOT REQUIRED BECA   | USE NO RECEIVED/   |
|  |  | SEISMIC ACTIVITY WAS CONDUC  |  |
| ■ 2. NO  |  | 그렇게 그리즘 하는 이렇게 되었다면 하면 하나 사람들이 바꾸게 하나 있다면 하나 있다.   | TED NOT REQUIRED   |
|  | TICE OF ENTRY FOR PLAT SURV  | SEISMIC ACTIVITY WAS CONDUC  | NOT REQUIRED  ONDUCTED RECEIVED  USE RECEIVED/   |
|  | TICE OF ENTRY FOR PLAT SURV  | SEISMIC ACTIVITY WAS CONDUCTIVELY OF NO PLAT SURVEY WAS CONDUCTED NOTICE NOT REQUIRED BECANOTICE OF ENTRY FOR PLAT SUR   | NOT REQUIRED  ONDUCTED RECEIVED  USE RECEIVED/ NOT REQUIRED  CE OWNER  Office of ON and                                  |
| □ 3. NO  | TICE OF ENTRY FOR PLAT SURV  | SEISMIC ACTIVITY WAS CONDUCTED OF NO PLAT SURVEY WAS CONDUCTED OF ENTRY FOR PLAT SURVEYS CONDUCTED OF WAS CONDUCTED OF WAITEN WAIVER BY SURFA  | NOT REQUIRED  ONDUCTED RECEIVED  USE RECEIVED/ NOT REQUIRED  |
| □ 3. NO  | TICE OF ENTRY FOR PLAT SURVICE OF INTENT TO DRILL or   | SEISMIC ACTIVITY WAS CONDUCTED OF NO PLAT SURVEY WAS CONDUCTED OF ENTRY FOR PLAT SURWAS CONDUCTED OF WRITTEN WAIVER BY SURFA (PLEASE ATTACH)   | NOT REQUIRED  ONDUCTED RECEIVED  USE RECEIVED/ NOT REQUIRED  CE OWNER  Office of ON and                                  |

### 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.

Notary Public

WW-6AC (1/12)

### Certification of Notice is hereby given:

THEREFORE, I Amy L. 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 Address: 380 Southpointe Boulevard, Plaza II, Suite 200

By: Amy L. Miller UNU Canonsburg, PA 15317

Its: Permitting Specialist - Appalachia Facsimile: 724-749-8388

Telephone: 724-749-8388 Email: amiller@tug-hillop.com

NOTARY SEAL

Commonwealth of Pennsylvania - Notary Seal MAUREEN A STEAD - Notary Public Washington County My Commission Expires Jan 28, 2023 Commission Number 1259926 Subscribed and sworn before me this 1 day of DCTDBER 2019

My Commission Expires 1/18/13

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 <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

Office of Oil and Gas

OCT - 2 2019

WV Department of Environmental Protection

API NO. 47-\_\_\_\_OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

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

| Not   | ice Time Requirem   | ent: notice shall be provi   | ided no later tha  | an the filing date of permit application.  |   |
|---|---|--|--|--|---|
|   | e of Notice: 9/30/2019<br>ice of:   | Date Permit Applica  | tion Filed: 10/1   | /2019  |   |
| <b>V</b>  | PERMIT FOR AN   |  |  | PROVAL FOR THE<br>AN IMPOUNDMENT OR PIT  |   |
| Deli  | ivery method pursi  | ant to West Virginia Co  | ode § 22-6A-10   | (b)  |   |
|   | PERSONAL<br>SERVICE   | REGISTERED MAIL  |  | OD OF DELIVERY THAT REQUIRES A   |   |
| regis sedin the social adescription of the social adescription open more well important important provides a substruction of the social adescription of the | stered mail or by any ment control plan reconsurface of the tract or and gas leasehold being ribed in the erosion a rator or lessee, in the e coal seams; (4) The work, if the surface oundment or pit as deep a water well, spring ride water for consumptions which work activated by the surface of the sheriff requision of this article to the R. § 35-8-5.7, a requirement control of the sample of | method of delivery that required by section seven of the which the well is or is proposed and sediment control plans sevent the tract of land on whomers of record of the subtract is to be used for the personal section of t | quires a receipt of this article, and to be located to be located well work, it is submitted pursual which the well purface tract or trail accement, constituting article; (5) A cated within one stic animals; and f more than threads, the applicant suant to section in the section of the secti | it as required by this article shall deliver, by por signature confirmation, copies of the appliance of the each of the following persons ated; (2) The owners of record of the surface of the surface tract is to be used for roads or of ant to subsection (c), section seven of this art roposed to be drilled is located [sic] is known acts overlying the oil and gas leasehold being ruction, enlargement, alteration, repair, remo Any surface owner or water purveyor who is thousand five hundred feet of the center of the feet of the operator of any natural gas storage to the tenants in common or other co-owners of int may serve the documents required upon the eight, article one, chapter eleven-a of this connotice to a landowner, unless the lien holder rovide the Well Site Safety Plan ("WSSP") that as provided in section 15 of this rule. | ication, the erosion and s: (1) The owners of record of tract or tracts overlying the ther land disturbance as ticle; (3) The coal owner, n to be underlain by one or g developed by the proposed val or abandonment of any known to the applicant to he well pad which is used to field within which the interests described in the person described in the de. (2) Notwithstanding any is the landowner. W. Va. |
| ☑ A   | application Notice  | ☑ WSSP Notice ☑ E&   | S Plan Notice  | ☑ Well Plat Notice is hereby provided  | d to:   |
|   | JRFACE OWNER(   | s)   |  | ☐ COAL OWNER OR LESSEE   |   |
|   | ne: David Lee Franklin  |  | -  | Name: CNX Land Resources, Inc.   |   |
|   | ress: 131 Saint Joseph F  |  | _  | Address: 1000 Consol Energy Drive  |   |
|   | Glen Easton, WV 2   |  | -1   | Canonsburg, PA 15318   | Office of Oil and Gas   |
| Add   | ress:   |  | -  | COAL OPERATOR Name: Address:   | of Oil and Gas  |
|   |   |  |  | Address:   | OCT - 2 2010  |
|   |   | s) (Road and/or Other Dis  | sturbance)   |  | - Var   |
|   | ne: David Lee Franklin  |  | -  | ☑ SURFACE OWNER OF WATER WE  | LL Environmental Bent of  |
|   | ress: 131 Saint Joseph F  |  | _  | AND/OR WATER PURVEYOR(s)   | WV Department of Environmental Protection   |
|   | Glen Easton, WV   |  | _  | Name: *See attached list   |   |
| Nam   | ne:   |  | -  | Address:   |   |
| Add   | 1088.   |  |  | OPERATOR OF ANY NATURAL GA   | AS STORAGE FIELD  |
| n SI  | JRFACE OWNER  | s) (Impoundments or Pits)  | 7  | Manage   |   |
| Nam   | ie:   |  |  | Address:   |   |
| Add   | ress:   |  | -  | *Please attach additional forms if necessary   |   |
|   |   |  | -  | without datafolial forms if hoods  | J   |

4705102279 RECEIVED API NO. 47-Office of Oil and Gas OPERATOR WELL NO. Knob Creek N-2HM Well Pad Name: Knob Creek UCT - 2 2019

Notice is hereby given:

Environmental Protection

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.

WV Department of

### 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/oiland-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

### 4705102279

API NO. 47-\_\_\_\_OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

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:

\*\*RECEIVED\*\*
Office of Oil and Cos.\*\*

Office of Oil and Cos.\*\*

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

0CT - 2 2019

WV Department of Environmental Protection

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.

# 4705102279

API NO. 47-\_\_\_\_OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

### 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 <a href="http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx">http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx</a> 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.

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WV Department of Environmental Protection

API NO. 47-OPERATOR WELL NO. Knob Creek N-2HM Well Pad Name: Knob Creek Address: 380 Southpointe Boulevard, Plaza II, Suite 200 Canonsburg, PA 15317 Facsimile: 724-338-2030

Notice is hereby given by:

Well Operator: Tug Hill Operating, LLC

Telephone: 724-749-8388

Email: amiller@tug-hillop.com anuystule-

### 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.

Commonwealth of Pennsylvania - Notary Seal MAUREEN A STEAD - Notary Public Washington County My Commission Expires Jan 28, 2023 Commission Number 1259926

Subscribed and sworn before me this 30 day of SEPT. 2019

My Commission Expires

Notary Pub

Notary Public

My Commission Expires

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WV Department of Environmental Protection

### Exhibit WW-6A

### Supplement Pg. 1A

Tug Hill Operating, LLC 380 Southpointe Blvd, Suite 200 Cannonsburg, PA 15137

### Residences within Two-Thousand Feet (2,000')

Office of Oil and Gas

OCT - 2 2019

WV Department of Environmental Protection

Well:

KNOB CREEK N - 2HM

District:

Meade (House #'s 1-12, 14-26) (Church #13)

State:

WV

There are twenty-six (25) residences, no businesses, one (1) church, no schools or no emergency facilities within two-thousand feet (2,000') of the above referenced well location.

| House 1 TM 14 Pcl. 39 Margaret Fox – Life c/o Paul Fox Phone: 304-455-3817 (Per Tax Address – Paul G. Fox) Physical Address: 31 Crow Dr. Glen Easton, WV 26039 Tax Address: 5761 Saint Joseph Rd. Proctor, WV 26055        | House 2 TM 14 Pcl. 32 Twila C. Coffield Phone: 304-845-5941 Physical Address: 184 Crow Dr. Glen Easton, WV 26039 Tax Address: 16 Sandy Ave. Moundsville, WV 26041-1020  | House 3 TM 14 Pcl. 54 Richard L. Harveth, Et Ux c/o Richard Lee Harveth Phone: 304-845-7397; 304-845-5128 Physical Address: 220 Crow Dr. Glen Easton, WV 26039 Tax Address: Same   |
|--|---|--|
| House 4 TM 14 Pcl. 42 John C. Lagos, Et Ux Phone: 304-845-2793 Physical Address: 12529 Fish Creek Rd. Glen Easton, WV 26039 Tax Address: 404 Jefferson Ave. Glen Dale, WV 26038  | House 5 TM 14 Pcl. 53 James E. Peelman Phone: None Found Physical Address: 12551 Fish Creek Rd. Glen Easton, WV 26039 Tax Address: 12551 Fish Creek Rd. Glen Easton, WV 26039   | House 6 TM 14 Pcl. 29.1 Andrew Fasouletos, Et Ux Phone: 304-845-9009 Physical Address: 329 Crow Dr. Glen Easton, WV 26039 Tax Address: 1. Rd. 2 Box 150 Proctor, WV 26055 2. 3391 Taylors Ridge Rd. Proctor, WV 26055-9723 |
| House 7 TM 14 Pcl. 29.1 Andrew Fasouletos, Et Ux Phone: 304-845-9009 Physical Address: 361 Crow Dr. Glen Easton, WV 26039 Tax Address: 1. Rd. 2 Box 150 Proctor, WV 26055 2. 3391 Taylors Ridge Rd. Proctor, WV 26055-9723 | House 8 TM 14 Pcl. 29 Andrew Fasouletos, Et Ux c/o Tena Marie Stricklin Phone: 304-845-9009 Physical Address: 389 Crow Dr. Glen Easton, WV 26039 Tax Address: 1. 3391 Taylors Ridge Rd. Proctor, WV 26055-9723 2. Rd. 2 Box 150 Proctor, WV 26055 | House 9 TM 14 Pcl. 48 Michael L. & Cheryl J. Acree Phone: 304-455-2148; 304-455-5859 Physical Address: 12725 Fish Creek Rd. Glen Easton, WV 26039 Tax Address: 189 Plum St. Proctor, WV 26055                              |

House 12 House 10 House 11 TM 16 Pcl. 15.1 TM 16 Pcl. 15 TM 14 Pcl. 45 Ronald R. Young, Et Ux - Life Eric J. Young George R. Taylor, Et Ux Phone: 304-845-6044 (Per Tax Address -Phone: 304-686-3398; 304-905-1986 Phone: 304-845-2987 Geraldine M. Young) (Per Address - Chelsey Long); 304-845-Physical Address: 0154 (Per Address - Bill J. Blatt) Physical Address: 12781 Fish Creek Rd. 348 Saint Joseph Rd. Glen Easton, WV 26039 Physical Address: Glen Easton, WV 26039 153 Young Ln. Tax Address: Glen Easton, WV 26039 Tax Address: Same Tax Address: Same Same House 13 House 14 House 15 TM 16 Pcl. 14 TM 16 Pcl. 15 TM 16 Pcl. 13.5 Paul R. Blake & Paul R. Blake II Ronald R. Young, Et Ux - Life Lynn Camp Methodist Church Phone: 304-845-6044 (Per Tax Address Phone: 304-845-9369 Phone: Physical Address: Geraldine M. Young) Physical Address: 616 Saint Joseph Rd. 171 Saint Joseph Rd. Physical Address: Glen Easton, WV 26039 Glen Easton, WV 26039 323 Saint Joseph Rd. Glen Easton, WV 26039 Tax Address: Tax Address: Unknown Address Tax Address: 121 Vandivere Ln. Moundsville, WV 26041 348 Saint Joseph Rd. Glen Easton, WV 26039-9707 Glen Easton, WV 26039 House 16 House 17 House 18 TM 16 Pcl. 13.1 TM 16 Pcl. 13.6 TM 16 Pcl. 13.3 Paul W. Blake - Life Paul R. Blake Wesley D. Yeater, Et Ux Phone: 304-845-2999 Phone: 304-843-5212 Phone: 304-845-9369 Physical Address: Physical Address: Physical Address: 37 Vandivere Ln. 121 Vandivere Ln. 581 Saint Joseph Rd. Glen Easton, WV 26039 Glen Easton, WV 26039 Glen Easton, WV 26039 Tax Address: Tax Address: Tax Address: 1500 8th St. Same Same Moundsville, WV 26041-2031 House 19 House 20 House 21 RECEIVED Office of Oil and Gas TM 16 Pcl. 12.2 TM 16 Pcl. 12.7 TM 16 Pcl. 12.1 Spencer J. & Carrie A. Richmond Spencer J. & Carrie A. Richmond James G. Richmond, Et Ux OCT - 2 2019 Phone: 304-845-2274; 304-845-8186 Phone: 304-845-2274; 304-845-8186 Phone: 304-845-8186 Physical Address: Physical Address: **Physical Address:** WV Department of Environmental Protection 293 Richmond Ln. 243 Richmond Ln. 157 Richmond Ln. Glen Easton, WV 26039 Glen Easton, WV 26039 Glen Easton, WV 26039 Tax Address: Tax Address: Tax Address: 243 Richmond Ln. Same Same Glen Easton, WV 26039 House 22 House 23 House 24 TM 14 Pcl. 33 TM 14 Pcl. 37 TM 14 Pcl. 37 David Lee Franklin Margaret Fox - Life Margaret Fox - Life Phone: 304-845-6025; 304-845-3203 c/o Paul Fox c/o Paul Fox **Physical Address:** Phone: 304-455-3817 (Per Tax Address Phone: 304-455-3817 (Per Tax Address -131 Saint Joseph Rd. - Paul G. Fox) Paul G. Fox) Glen Easton, WV 26039 Physical Address: Physical Address: Tax Address: 107 Saint Joseph Rd. 51 Saint Joseph Rd. 131 Saint Joseph Rd. Glen Easton, WV 26039 Glen Easton, WV 26039 Glen Easton, WV 26039 Tax Address: Tax Address: 5761 Saint Joseph Rd. 5761 Saint Joseph Rd. Proctor, WV 26055 Proctor, WV 26055

House 25

TM 13 Pcl. 13

Margaret K. Fox - Life

c/o Paul Fox

Phone: 304-455-3817 (Per Tax Address

- Paul G. Fox)

**Physical Address:** 28 Richmond Ln.

Glen Easton, WV 26039

Tax Address:

5761 Saint Joseph Rd. Proctor, WV 26055

House 26

TM 13 Pcl. 12

Nila Jean Prohnapfel

Phone: None Found

Physical Address:

11975 Fish Creek Rd.

Glen Easton, W 26039

Tax Address:

Rd. 1 Box 190

Proctor, WV 26055-9703

RECEIVED Office of Oil and Gas

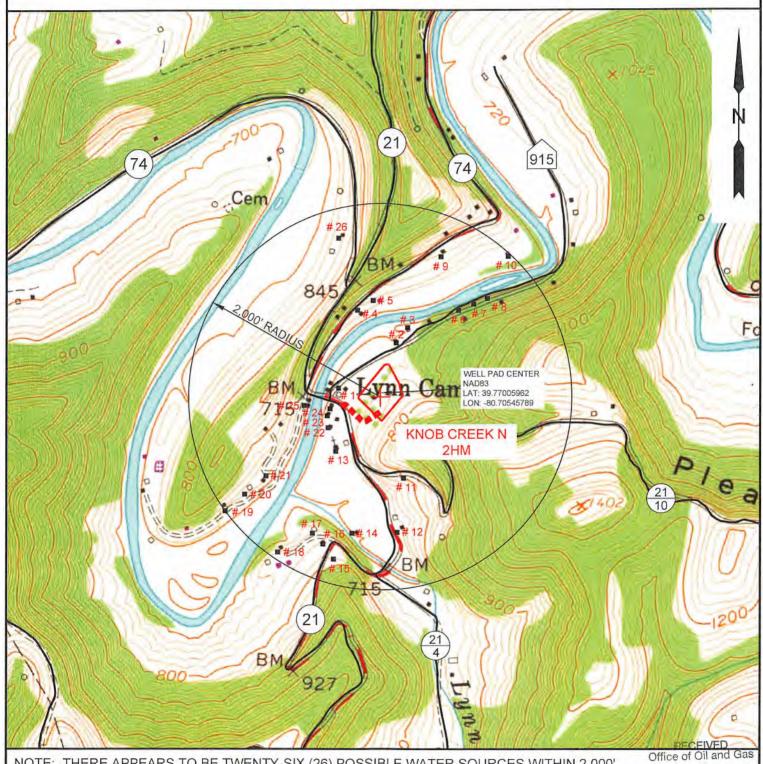
OCT - 2 2019

WV Department of Environmental Protection

WW-6A

### **PROPOSED** KNOB CREEK N - 2HM

SUPPLEMENT PG. 1B



NOTE: THERE APPEARS TO BE TWENTY-SIX (26) POSSIBLE WATER SOURCES WITHIN 2,000'.

OCT - 2 2019



|   | TOPO SI  | ECTION:   | OPER                    | ATOR:      |
|---|----------|-----------|-------------------------|------------|
|   | GLEN EAS | STON 7.5' | PREPARED FOR            |            |
| ١ | COUNTY   | DISTRICT  | 380 SOUTHPOI            | NTE BLVD   |
|   | MARSHALL | MEADE     | SUITE 200<br>CANONSBURG | , PA 15317 |
|   | DRAWN BY | JOB NO.   | DATE                    | SCALE      |
| 4 | K.G.M.   | 8789      | 07/27/2018              | 1" - 1000' |



WW-6A3 (1/12) Operator Well No. Knob Creek N-2HM

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

|  | Requirement:   | Notice shall be prov  | ided at   | least SEVEN (7) da   | ys but no more tha   | n FORTY-FIVE   | (45) days prior to  |
|--|--|---|---|--|--|--|---|
| Date of Notice   | e: 2/5/2018  | Date of Plan  | ned E   | ntry: 2/12/2018  |  |  |   |
| Delivery met   | hod pursuant   | to West Virginia Co   | ode § 2   | 2-6A-10a   |  |  |   |
| ☐ PERSO  | NAL 🗆  | REGISTERED  |   | METHOD OF DEI  | IVERY THAT RI  | EQUIRES A  |   |
| SERVIC   |  | MAIL  |   | RECEIPT OR SIGN  |  |  |   |
| on to the surf<br>but no more t<br>beneath such<br>owner of min<br>and Sediment<br>Secretary, wh | ace tract to con-<br>han forty-five of<br>tract that has fi<br>erals underlying<br>Control Manualich statement s | duct any plat surveys<br>lays prior to such ent<br>led a declaration pur-<br>g such tract in the co<br>al and the statutes an | requir<br>ry to: (<br>suant to<br>unty ta<br>d rules<br>informa | related to oil and ga-<br>ation, including the a   | ticle. Such notice<br>r of such tract; (2)<br>rticle six, chapter t<br>e shall include a st<br>s exploration and p | shall be provided a<br>to any owner or le<br>wenty-two of this<br>atement that copies<br>production may be | at least seven days<br>ssee of coal seams<br>code; and (3) any<br>s of the state Erosion<br>obtained from the |
| Notice is her  | eby provided t   | 0:  |   |  |  |  |   |
| ■ SURFAC   | CE OWNER(s)  |   |   | ■ COA  | L OWNER OR LE  | ESSEE  |   |
|  | ee Franklin (Pad and   | Access Road)  |   |  | X Land Resources, Inc.   | /  |   |
|  | Saint Joseph Road  | /   | ~   |  | 1000 Consol Energy Drive   | /  | _   |
|  | Easton, WV 26039   |   |   |  | Canonsburg, PA 15318   |  |   |
| Name:  |  |   |   |  |  |  |   |
| Address:   |  |   | -   | ■ MINI   | ERAL OWNER(s)  |  |   |
|  |  |   |   | Name: Day  | rid Lee Franklin   |  |   |
| Name:  |  |   |   | Address:   | 131 Saint Joseph Road  |  |   |
| Address:   |  |   |   |  | Glen Easton, WV 26039  |  |   |
|  |  |   | -   | *please attac  | h additional forms if ne   | ecessary   |   |
|  |  |   | otice is  | Approx. Latit Public Road A Watershed:   | ude & Longitude:   | 39.7700596; -80.70545<br>St. Joseph Road - Cour<br>Fish Creek (HUC 10)                                     | 79  |
| Quadrangle:  | Glen Easton 7.5'   |   |   | Generally use  | d form name:   | David Lee Franklin   |   |
| Copies of the<br>may be obtain<br>Charleston, W  | state Erosion and from the Se<br>VV 25304 (304   | cretary, at the WV D<br>-926-0450). Copies  | epartm<br>of such   | al and the statutes an<br>ent of Environmenta<br>documents or addit<br>v/oil-and-gas/pages/o | d rules related to o<br>I Protection headq<br>ional information r  | il and gas explorat<br>uarters, located at   | 601 57 <sup>th</sup> Street, SE,  |
|  | reby given by  | :   |   |  |  |  | RECEIVED<br>Office of Oil and Gas   |
| Well Operato   | Tug Hill Operatin  | ng, LLC   |   | Address:   | 380 Southpointe Boulev   | vard, Plaza II, Suite 200  | Office of Oil and   |
| Telephone:   | 724-749-8388   |   |   |  | Canonsburg, PA 15317   |  | OCT - 2 2019  |
| Email:   | amiller@tug-hillo  | p.com   |   | Facsimile:   | 724-338-2030   |  | 001   |
| Oil and Gas  | Privacy Not  | ice:  |   |  |  |  | WV Department of<br>Environmental Protecti  |

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 <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

WW-6A5 (1/12) Operator Well No. Knob Creek N-2HM

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

| Date of Notic  | Requirement: notice shall be prov<br>e: 10/01/2019 Date Per  | mit Application Filed: 10  | 01/2019  |   |  |
|--|--|--|--|---|--|
| Delivery met   | hod pursuant to West Virginia C  | ode § 22-6A-16(e)  |  |   |  |
| ■ CERTII   | FIED MAIL  | ☐ HAND   |  |   |  |
|  | RN RECEIPT REQUESTED   | DELIVERY   |  |   |  |
| return receipt the planned of required to be drilling of a l damages to th d) The notice of notice.  Notice is here at the address Name: David Le  | aint Joseph Road   | ne surface owner whose land this subsection shall include the notation of this article to a surface use and compenderations to the extent the digiven to the surface owner owner.  | d will be used for<br>ide: (1) A copy<br>face owner whose<br>sation agreement<br>amages are come<br>at the address li  | or the drilling of a hor<br>of this code section;<br>se land will be used in<br>it containing an offer<br>pensable under article<br>sted in the records of  | rizontal well notice of (2) The information a conjunction with the of compensation for e six-b of this chapter.  |
| Pursuant to Woperation on  | eby given:<br>lest Virginia Code § 22-6A-16(c), no<br>the surface owner's land for the pur   |  | al well on the tra   | ect of land as follows:   |  |
| Notice is here<br>Pursuant to W<br>operation on<br>State:  | eby given:<br>lest Virginia Code § 22-6A-16(c), no<br>the surface owner's land for the pur<br>West Virginia  |  | al well on the tra<br>Easting:   | well operator has devote of land as follows:  |  |
| Notice is here<br>Pursuant to W<br>peration on<br>State:<br>County:  | eby given:<br>lest Virginia Code § 22-6A-16(c), no<br>the surface owner's land for the pure<br>West Virginia<br>Marshall   | rpose of drilling a horizont UTM NAD   | al well on the tra<br>Easting:<br>Northing:  | well operator has devo<br>to of land as follows:<br>525,217.67<br>4,402,272.06  |  |
| Notice is here<br>Pursuant to We<br>operation on<br>State:<br>County:<br>District:   | eby given:<br>lest Virginia Code § 22-6A-16(c), no<br>the surface owner's land for the pur<br>West Virginia  | rpose of drilling a horizont  UTM NAD  Public Road   | al well on the tra Basting: Northing: Access:  | well operator has devote of land as follows:  |  |
| Notice is here<br>Pursuant to We<br>operation on<br>State:<br>County:<br>District:<br>Quadrangle:  | eby given: est Virginia Code § 22-6A-16(c), note the surface owner's land for the pure west Virginia  Marshall  Meade  | rpose of drilling a horizont  UTM NAD  Public Road   | al well on the tra<br>Easting:<br>Northing:  | well operator has devo<br>act of land as follows:<br>525,217.67<br>4,402,272.06<br>St. Joseph Road - CR 21  |  |
| Notice is here<br>Pursuant to We<br>operation on<br>State:<br>County:<br>District:<br>Quadrangle:<br>Watershed:<br>This Notice Sepursuant to We<br>to be provided norizontal we<br>surface affects information re  | eby given:  Jest Virginia Code § 22-6A-16(c), no the surface owner's land for the purious West Virginia  Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC 10)  hall Include:  Jest Virginia Code § 22-6A-16(c), no the purious was a second of the purious w | this notice shall include: (1 to a surface owner whos and compensation agreeme e extent the damages are come obtained from the Secre   | Easting: Northing: Access: ed farm name:  A copy of this e land will be undertaining arompensable undertary, at the WV   | well operator has devoted of land as follows:  525,217.67  4,402,272.06  St. Joseph Road - CR 21  David Lee Franklin  code section; (2) The used in conjunction was offer of compensation of the compensation | information required with the drilling of a on for damages to the s chapter. Additional ronmental Protection   |
| Notice is here Pursuant to We operation on State: County: District: Quadrangle: Watershed:  Phis Notice Service and to We obe provide norizontal we obtain formation repeadquarters, and pages / definition of the state of the st | eby given: lest Virginia Code § 22-6A-16(c), in the surface owner's land for the pur West Virginia Marshall Meade Glen Easton 7.5' Fish Creek (HUC 10)  hall Include: lest Virginia Code § 22-6A-16(c), it d by W. Va. Code § 22-6A-10(b) Il; and (3) A proposed surface use a elated to horizontal drilling may b located at 601 57th Street, SE, ault.aspx.  | this notice shall include: (1 to a surface owner whos and compensation agreeme e extent the damages are come obtained from the Secre   | Easting: Northing: Access: ed farm name:  A copy of this e land will be undertaining arompensable undertary, at the WV   | well operator has devoted of land as follows:  525,217.67  4,402,272.06  St. Joseph Road - CR 21  David Lee Franklin  code section; (2) The used in conjunction was offer of compensation of the compensation | information required<br>with the drilling of a<br>on for damages to the<br>s chapter. Additional<br>ronmental Protection<br>v.dep.wv.gov/oil-and-                        |
| Notice is here<br>Pursuant to We<br>peration on<br>State:<br>County:<br>District:<br>Quadrangle:<br>Watershed:<br>Pursuant to We<br>to be provided<br>porizontal we<br>purface affect<br>information re<br>peadquarters,<br>pas/pages/defa   | eby given: lest Virginia Code § 22-6A-16(c), in the surface owner's land for the pur West Virginia Marshall Meade Glen Easton 7.5' Fish Creek (HUC 10)  hall Include: lest Virginia Code § 22-6A-16(c), it d by W. Va. Code § 22-6A-10(b) Il; and (3) A proposed surface use a elated to horizontal drilling may b located at 601 57th Street, SE, ault.aspx.  | this notice shall include: (1 to a surface owner whos and compensation agreeme e extent the damages are come obtained from the Secre   | al well on the tra Easting: Northing: Access: ed farm name:  )A copy of this e land will be und containing ar ompensable und tary, at the WV (304-926-0450)                                      | well operator has devoted of land as follows:  525,217.67  4,402,272.06  St. Joseph Road - CR 21  David Lee Franklin  code section; (2) The used in conjunction was offer of compensation of the compensation | information required with the drilling of a on for damages to the s chapter. Additional ronmental Protection v.dep.wv.gov/oil-and-RECEIVED Garage of Oil and Garage 2019 |
| Notice is here Pursuant to W pperation on State: County: District: Quadrangle: Watershed:  This Notice S Pursuant to W to be provide norizontal we surface affect information re neadquarters, pas/pages/defi Well Operator Telephone:   | eby given: lest Virginia Code § 22-6A-16(c), in the surface owner's land for the pur West Virginia Marshall Meade Glen Easton 7.5' Fish Creek (HUC 10)  hall Include: lest Virginia Code § 22-6A-16(c), it d by W. Va. Code § 22-6A-10(b) Il; and (3) A proposed surface use a elated to horizontal drilling may b located at 601 57th Street, SE, ault.aspx.  | this notice shall include: (1 to a surface owner whos and compensation agreeme extent the damages are ce obtained from the Secret Charleston, WV 25304  Address:   | al well on the tra Easting: Northing: Access: ed farm name:  )A copy of this e land will be und containing arompensable und tary, at the WV (304-926-0450)  380 Southpointe Bo Canonsburg, PA 15 | well operator has devoted of land as follows:  525,217.67  4,402,272.06  St. Joseph Road - CR 21  David Lee Franklin  code section; (2) The used in conjunction of a compensation of the article six-b of this or by visiting www.  | information required<br>with the drilling of a<br>on for damages to the<br>s chapter. Additional<br>ronmental Protection<br>v.dep.wv.gov/oil-and-                        |
| Notice is here<br>Pursuant to We<br>operation on<br>State:<br>County:<br>District:<br>Quadrangle:<br>Watershed:<br>This Notice Sepursuant to We<br>to be provided norizontal we<br>surface affects information re-   | eby given:  Jest Virginia Code § 22-6A-16(c), in the surface owner's land for the purious West Virginia  Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC 10)  Hall Include:  Jest Virginia Code § 22-6A-16(c), it does be a compared to the purious description of th | this notice shall include: (1 to a surface owner whos and compensation agreement extent the damages are compensation to the control of the co | al well on the tra Easting: Northing: Access: ed farm name:  )A copy of this e land will be und containing arompensable und tary, at the WV (304-926-0450)  380 Southpointe Bo Canonsburg, PA 15 | well operator has devoted of land as follows:  525,217.67  4,402,272.06  St. Joseph Road - CR 21  David Lee Franklin  code section; (2) The used in conjunction of a compensation of the article six-b of this or by visiting www.  | information required with the drilling of a on for damages to the s chapter. Additional ronmental Protection v.dep.wv.gov/oil-and-RECEIVED Office of Oil and Garage      |

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 <a href="mailto:deprivacyofficer@wv.gov">deprivacyofficer@wv.gov</a>.

| API NO. 47-    | -      |                  |
|----------------|--------|------------------|
| OPERATOR WELL  | NO.    | Knob Creek N-2HM |
| Well Pad Name: | Knob C | reek             |

#### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

The well operator, Tug Hill Operating, LLC is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months. Well Location Restrictions Pursuant to West Virginia Code § 22-6A-12(a), 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. WAIVER I, Thermal attend for the Party Attendance on Transformation Ltd., hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through , including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows: UTM NAD 83 Easting: State: West Virginia UTM NAD 83 Northing: County: Marshall 4,402,272.06 District: Meade Public Road Access: St. Joseph Road - County Route 21 Ouadrangle: Glen Easton 7.5' Generally used farm name: David Lee Franklin Watershed: Fish Creek (HUC-10) I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a). WELL SITE RESTRICTIONS BEING WAIVED FOR EXECUTION BY A NATURAL PERSON \*Please check all that apply Signature: Print Name: ☐ EXISTING WATER WELLS Date: FOR EXECUTION BY A CORPORATION, ETC. □ DEVELOPED SPRINGS Company: TH Explorat By: Douglas L. DeMartino DWELLINGS Its: Attorney-in-Fact ☐ AGRICULTURAL BUILDINGS Signature: Date: Well Operator: Tug Hill Operating, LLC Signature: By: David G. DeLallo OCT - 2 2019 Telephone: Its: Land Team Lead COMMONWEALTH OF PENNSYLVANIA Subscribed and sworn before me this 30h day of September 2019 NOTABIBARBEAGEAL Chester Arthur West IV, Notary Public
Pine Twp., Allegheny County
My Commission Expires Feb. 10, 2020
MEMBER PENNSYLVANIA ASSOCIATION OF NOTARIES Notary Public

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@ww.gov.

2-10-2020

My Commission Expires

RECEIVED Office of Oil and Gas

WV Department of Environmental Protection

## LIMITED POWER OF ATTORNEY 7 0 5 1 0 2 2 7 9

That I, Thomas John Fox, hereby make, name and appoint, Tug Hill Operating, LLC, by and through its officers, agents or employees to be my limited power of attorney, for the sole and specific purpose of executing Well Location Restriction Waivers(s) that permit the conducting of oil or gas well work and the drilling of additional oil and gas wells on the Knob Creek Well Pad situate in Meade District, Marshall County, West Virginia, shown on Tax Map 14, as Parcel 33. See attached Exhibit A. Said waivers shall be of the type shown on the attached **Exhibit B**, differing only in the api number and operator well number located on the form.

I the said Thomas John Fox hereby declare that acts done by my said attorney for said specific and sole purpose shall be as good, valid and effective, to all intents and purposes whatsoever, as if the same had been made or done by me, and I hereby undertake to ratify whatsoever my attorney shall lawfully do or cause to be done, by virtue of these presents.

I further direct this Limited Power of Attorney shall be good and valid until a revocation thereof has been duly executed by the undersigned.

Thomas John Fox

STATE OF West Virginia County of MArs hall to-wit:

The foregoing instrument was acknowledged before me this 31st day of March, 2018, by Thomas John Fox.

Given under my hand this 31st day of MAK

RECEIVED. Office of Oil and Gas

My commission expires: 18,2027

OCT - 2 2019

(NOTARY SEAL/STAMP REQUIRED)

W Department of Environmental Protection

OFFICIAL SEAL NOTARY PUBLIC TE OF WEST VIRGINIA ERIC M. GORDON 514 7th St. Moundsville, WV 26041 My Commission Expires January 18, 2022

Notary Public for the aforesaid County and/or State

This Instrument Prepared By:

Eric M. Gordon, Esquire Berry, Kessler, Crutchfield, Taylor & Gordon 514 Seventh Street Moundsville, WV 26041

| API NO. 47-           |                  |
|-----------------------|------------------|
| OPERATOR WELL NO.     | Knob Creek N-2HM |
| Well Pad Name: Knob C | reek             |

# STATE OF WEST VIRGINIA

| The well ope<br>work. Please  | rator, Tug Hill Operating, LLC is a be advised that well work permits are val   | pplying for a permit from the State of West Virginia to conduct oil or gas well d for twenty-four (24) months.   |
|---|---|--|
| Pursuant to V<br>any existing<br>located within<br>larger used to<br>dwellings or<br>provided in so<br>article was pr<br>by written co-<br>clerk of the of<br>variance by to<br>or practices to<br>conditions the | water well or developed spring used for a six hundred twenty-five feet of an occup of house or shelter dairy cattle or poultry agricultural buildings that existed on the ection ten of this article or a notice of interview ovided, whichever occurs first, and to any insent of the surface owner transmitted to county commission for the county in which exerctary from these distance restriction to be employed during well site construct | and the state of t |
|   |   | WAIVER   |
| provisions lis<br>WW-6A and<br>required, and<br>State:<br>County;<br>District:<br>Quadrangle:<br>Watershed:   | ted above, and that I have received copies attachments consisting of pages one (1) the well plat, all for proposed well work of West Virginia  Marshall  Meade  Glen Easton 7.5  Fish Creek (HUC-10)  | UTM NAD 83 Easting:         525,217.67           UTM NAD 83 Northing:         4,402,272.06           Public Road Access:         St. Joseph Road - County Route 21           Generally used farm name:         David Lee Franklin  |
| I further state   | that I have no objection to the planned we  | rk described in these materials, and I have no objection to a permit being   |
|   | RESTRICTIONS BEING WAIVED   | itte restrictions listed under West Virginia Code § 22-6A-12(a).  FOR EXECUTION BY A NATURAL PERSON  |
|   | all that apply  | Signature:   |
| ☐ EXISTE  | NG WATER WELLS  | Print Name: Date:  |
| □ DEVEL   | OPED SPRINGS  | FOR EXECUTION BY A CORPORATION, ETC. Company: TH Exploration, LLC as Attorney-in-Fact for David E. Fox   |
| DWELI   | LINGS   | By: Douglas L. CeMartino   |
| T AGRICI  | JLTURAL BUILDINGS   | Its: Attomey-in-Fact Signature: Att  |
| L AGIGC   | DETORAL BOILDINGS   | Date: 912012019  |
|   | r: Tug Hili Operating, LLC  | Signature:   |
| By: David G. Del  |   | Telephone: 724-749-8383  |
| Its: Land Team L  | ead   |  |
| My Co   | JREEN A STEAD - Notary Public Washington County ommission Expires Jan 28, 2023 ommission Number 1259926   | scribed and sworn before me this 30 day of NOTEMBEL 2019  Notary Public RECEIVED Gas  1/2 / 1/2  |
| Oil and Gas P   | rivacy Notice:  | Commission Expires   |
| personal inforn   | nation may be disclosed to other State agencies   | or third parties in the normal course of business or as needed to comply with statutory and Act requests. Our office will appropriately secure your personal information. If you   |

4705102279

That I, David E. Fox, hereby make, name and appoint, Tug Hill Operating, LLC, by and through its officers, agents or employees to be my limited power of attorney, for the sole and specific purpose of executing Well Location Restriction Waivers(s) that permit the conducting of oil or gas well work and the drilling of additional oil and gas wells on the Knob Creek Well Pad situate in Meade District, Marshall County, West Virginia, shown on Tax Map 14, as Parcel 33. See attached **Exhibit A**. Said waivers shall be of the type shown on the attached **Exhibit B**, differing only in the api number and operator well number located on the form.

I the said David E. Fox hereby declare that acts done by my said attorney for said specific and sole purpose shall be as good, valid and effective, to all intents and purposes whatsoever, as if the same had been made or done by me, and I hereby undertake to ratify whatsoever my attorney shall lawfully do or cause to be done, by virtue of these presents.

I further direct this Limited Power of Attorney shall be good and valid until a revocation thereof has been duly executed by the undersigned.

Nun Grace (SEAL)

STATE OF West Virginia:

County of Marshay, to-wit

The foregoing instrument was acknowledged before me this 2 day of 2018, by David E. Fox.

Given under my hand this day of March 2018

My commission expires: August 30, 2023

Office of Oil and Gas

(NOTARY SEAL/STAMP REQUIRED)

WV Department of Environmental Protection

Official Seal

Notary Public, State Of West Virginia

Mary M Aston

514 Seventh Street

Moundsville WV 26041

My commission expires August 30, 2023

Notary Public for the aforesaid County and/or State

This Instrument Prepared By:

Eric M. Gordon, Esquire
Berry, Kessler, Crutchfield, Taylor & Gordon
514 Seventh Street
Moundsville, WV 26041

| API NO. 47-         |                  |
|---------------------|------------------|
| OPERATOR WELL NO    | Knob Creek N-2HM |
| Well Pad Name: Knob | Creek            |

# STATE OF WEST VIRGINIA

|  | rator, Tug Hill Operating, LLC is be advised that well work permits are val  |  | of West Virginia to conduct oil or gas wel  |
|--|--|--|---|
| Pursuant to V<br>any existing located within<br>larger used to<br>dwellings or a<br>provided in starticle was pr<br>by written co-<br>clerk of the co-<br>variance by the<br>or practices to<br>conditions the | water well or developed spring used for a six hundred twenty-five feet of an occur of house or shelter dairy cattle or poultry agricultural buildings that existed on the section ten of this article or a notice of interview ovided, whichever occurs first, and to an insent of the surface owner transmitted t | human or domestic animal consun-<br>pied dwelling structure, or a building<br>y husbandry. This limitation is ap-<br>date a notice to the surface owner<br>ent to drill a horizontal well as provi-<br>to the department and recorded in the<br>ich such property is located. Furtherns upon submission of a plan which<br>tion, drilling and operations. The valued persons a   | ndred fifty feet measured horizontally from aption. The center of well pads may not be ag two thousand five hundred square feet of plicable to those wells, developed springs of planned entry for surveying or staking at ded in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the armore, the well operator may be granted at identifies the sufficient measures, facilities variance, if granted, shall include terms and and property. The terms and conditions may |
| meiude msura   | nice, boliding and indemnification, as we  | WAIVER   |   |
| WW-6A and  | ted above, and that I have received copies attachments consisting of pages one (1) the well plat, all for proposed well work of Weet Virginia Marshall Meade   | arough, including the  | lication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67  4,402,272.08  St. Joseph Road - County Route 21  |
| Quadrangle:  |  | Generally used farm name:  |   |
| Watershed:   | Fish Creek (HUC-10)  |  |   |
|  | that I have no objection to the planned w  | ork described in these materials, and  | I I have no objection to a permit being   |
| I further state  | a managala and Yakamafana social all small   | also and also a Det 1 1 177 at   | " · · · · · · · · · · · · · · · · · · ·   |
| issued on thos   | se materials and I therefore waive all well  | site restrictions listed under West  | Virginia Code § 22-6A-12(a).  |
| issued on thos<br>WELL SITE  | se materials and I therefore waive all well<br>RESTRICTIONS BEING WAIVED<br>at all that apply  | site restrictions listed under West  | Virginia Code § 22-6A-12(a). TION BY A NATURAL PERSON   |
| issued on thos<br>WELL SITE<br>*Please check   | se materials and I therefore waive all well<br>RESTRICTIONS BEING WAIVED<br>all that apply   | site restrictions listed under West FOR EXECU  | Virginia Code § 22-6A-12(a).  |
| issued on thos<br>WELL SITE<br>*Please check   | se materials and I therefore waive all well<br>RESTRICTIONS BEING WAIVED   | site restrictions listed under West FOR EXECU Signature: Print Name: Date:   | Virginia Code § 22-6A-12(a).<br>FION BY A NATURAL PERSON  |
| issued on thos WELL SITE *Please check   | se materials and I therefore waive all well<br>RESTRICTIONS BEING WAIVED<br>all that apply   | site restrictions listed under West   FOR EXECU   Signature: Print Name: Date:   FOR EXECU   | Virginia Code § 22-6A-12(a). FION BY A NATURAL PERSON FION BY A CORPORATION, ETC.   |
| issued on thos WELL SITE *Please check  EXISTIN  DEVEL   | se materials and I therefore waive all well RESTRICTIONS BEING WAIVED t all that apply NG WATER WELLS OPED SPRINGS   | Site restrictions listed under West   FOR EXECU   Signature: Print Name: Date: FOR EXECU   Company: THE  | Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox   |
| issued on thos WELL SITE *Please check  EXISTIN  DEVEL   | se materials and I therefore waive all well RESTRICTIONS BEING WAIVED t all that apply NG WATER WELLS OPED SPRINGS   | Site restrictions listed under West   FOR EXECU   Signature:   Print Name:   Date:   FOR EXECU   Company: THE   By: Douglas L De   | Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox  Martino  |
| ssued on thos WELL SITE Please check EXISTN DEVEL DEVEL  | se materials and I therefore waive all well RESTRICTIONS BEING WAIVED t all that apply NG WATER WELLS OPED SPRINGS   | Site restrictions listed under West  FOR EXECU Signature: Print Name: Date: FOR EXECU Company: THE By: Douglas L. De Its: Attorney-in-Fac  | Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox Martino  t  |
| ssued on thos WELL SITE Please check EXISTN DEVEL DEVEL  | se materials and I therefore waive all well RESTRICTIONS BEING WAIVED t all that apply NG WATER WELLS OPED SPRINGS LINGS   | Site restrictions listed under West  FOR EXECU Signature: Print Name: Date: FOR EXECU Company: THE By: Douglas L. De Its: Attorney-in-Fac  | Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox Martino  t  |
| ssued on thos WELL SITE Please check EXISTIN DEVEL DWELI AGRICU Vell Operato   | se materials and I therefore waive all well RESTRICTIONS BEING WAIVED tall that apply NG WATER WELLS OPED SPRINGS LINGS JLTURAL BUILDINGS TO TUB HIM Operating, LLC  | FOR EXECU Signature: Print Name: Date: FOR EXECU Company: THE By: Douglas L. De Its: Attorney-in-Fat Signature: Date: Signature: Date: Signature: Signature: Signature: Signature: Signature: Signature: Signature: Signature:   | Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louls T. Fox  Martino t  |
| ssued on thos WELL SITE Please check EXISTIN DEVEL DWELI AGRICU Well Operato By: David G. Det.   | se materials and I therefore waive all well RESTRICTIONS BEING WAIVED t all that apply NG WATER WELLS OPED SPRINGS LINGS JLTURAL BUILDINGS r; Tug HIII Operating, LLC allo   | FOR EXECU Signature: Print Name: Date: FOR EXECU Company: THE By: Douglas L. De Its: Attorney-in-Fat Signature: Date: Signature: Date: Signature: Signature: Signature: Signature: Signature: Signature: Signature: Signature:   | Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox Martino  t  |
| issued on thos WELL SITE *Please check  EXISTN  DEVEL  DWELL  AGRICU   | se materials and I therefore waive all well RESTRICTIONS BEING WAIVED t all that apply NG WATER WELLS OPED SPRINGS LINGS JLTURAL BUILDINGS r; Tug HIII Operating, LLC allo   | Site restrictions listed under West   FOR EXECU   Signature:   Print Name:   Date:   Print Name:   Print Name: | Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox Martino  t  |

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.

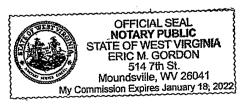
RECEIVED Office of Oil and Gas

OCT - 2 2019

WV Department of Environmental Protection

# LIMITED POWER OF ATTORNEY 4 7 0 5 1 0 2 2 7 9

| That I, Louis T. Fox , hereby make, name and appoint, Tug Hill Operating,                                      |
|--|
| LLC, its successors and assigns, by and through its officers, agents or employees to be my limited power of    |
| attorney, for the sole and specific purpose of executing Well Location Restriction Waivers(s) waiving all well |
| site restrictions listed under West Virginia Code 22-6A-12(a) for the Knob Creek Well Pad situate in Meade     |
| District, Marshall County, West Virginia, located on Tax Map 14, Parcel 33 and depicted on the attached        |
| Exhibit A. Said waivers shall be of the type shown on the attached Exhibit B.                                  |
| I the said Louis T. Fox hereby declare that acts done by my said attorney for said                             |
| specific and sole purpose shall be as good, valid and effective, to all intents and purposes whatsoever, as if |
| the same had been made or done by me, and I hereby undertake to ratify whatsoever my attorney shall            |
| lawfully do or cause to be done, by virtue of these presents.  |
| I further direct this Limited Power of Attorney shall be good and valid until a revocation thereof has         |
| been duly executed by the undersigned.  Aauto 1, 7 (3 - 24 (SEAL)  |
| STATE OF West Virginin: COUNTY OF MArshall to-wit:   |
| The foregoing instrument was acknowledged before me this 24 day of March, 2018, by Louis T. Fox                |
| Given under my hand this 24th day of March, 2018.  |
| Given under my hand this 24th day of March, 2018.  My commission expires: Jalle, 2022.                         |
| (NOTARY SEAL/STAMP REQUIRED)   |



RECEIVED .
Office of Oil and Gas

Notary Public for the aforesaid County and/or State

OCT - 2 2019

W Department of Environmental Protection

#### This Instrument Prepared By:

Eric M. Gordon, Esquire
Berry, Kessler, Crutchfield, Taylor & Gordon
514 Seventh Street
Moundsville, WV 26041
(304) 845-2580

T:\MSAston\Limited Power of Attorney\EMG.Limited.POA.wpd

| API NO. 47-    | -      |                  |
|----------------|--------|------------------|
| OPERATOR WELL  | NO.    | Knob Creek N-2HM |
| Well Pad Name: | Knob C | reek             |

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

| work. Please   | rator, Tug Hill Operating, LLC is apple advised that well work permits are valid   | plying for a permit from the State of West Virginia to conduct oil or gas well for twenty-four (24) months.  |
|--|--|--|
| Pursuant to Wany existing valocated within larger used to dwellings or a provided in searticle was proby written collected of the covariance by the conditions the | water well or developed spring used for hun six hundred twenty-five feet of an occupied house or shelter dairy cattle or poultry hagricultural buildings that existed on the datection ten of this article or a notice of intent ovided, whichever occurs first, and to any disnessent of the surface owner transmitted to soounty commission for the county in which he secretary from these distance restrictions to be employed during well site constructions. | may not be drilled within two hundred fifty feet measured horizontally from aman or domestic animal consumption. The center of well pads may not be ad dwelling structure, or a building two thousand five hundred square feet or nusbandry. This limitation is applicable to those wells, developed springs, te a notice to the surface owner of planned entry for surveying or staking as to drill a horizontal well as provided in subsection (b), section sixteen of this twelling under construction prior to that date. This limitation may be waived the department and recorded in the real property records maintained by the such property is located. Furthermore, the well operator may be granted a upon submission of a plan which identifies the sufficient measures, facilities n, drilling and operations. The variance, if granted, shall include terms and d protection of affected persons and property. The terms and conditions may is technical requirements. |
|  |  | WAIVER   |
| WW-6A and a<br>required, and state:<br>County:<br>District:<br>Quadrangle:<br>Watershed:   | attachments consisting of pages one (1) thro the well plat, all for proposed well work on West Virginia Marshall Meade Gien Easton 7.5' Fish Creek (HUC-10) that I have no objection to the planned work   | f a Notice of Application, an Application for a Well Work Permit on Form ugh   |
| issued on thos   | se materials and I therefore waive all well si   | te restrictions listed under West Virginia Code & 22-6A-12(a).   |
| issued on thos WELL SITE *Please check  EXISTIN  | se materials and I therefore waive all well sin<br>RESTRICTIONS BEING WAIVED   | FOR EXECUTION BY A NATURAL PERSON Signature: Print Name: Date: FOR EXECUTION BY A CORPORATION, ETC.  |
| issued on thos WELL SITE *Please check  EXISTIN DEVELO DWELL   | se materials and I therefore waive all well sing RESTRICTIONS BEING WAIVED at that apply NG WATER WELLS OPED SPRINGS   | FOR EXECUTION BY A NATURAL PERSON Signature: Print Name: Date: FOR EXECUTION BY A CORPORATION, ETC. Company: TH Exploration, LLC as Attornsy-in-Fact for David Lee Franklin By: Douglas L DeMartino Its: Attorney-in-Fact Signature:   |
| issued on thos WELL SITE *Please check  EXISTIN DEVELO  OWELL AGRICU   | se materials and I therefore waive all well sing RESTRICTIONS BEING WAIVED all that apply NG WATER WELLS OPED SPRINGS LINGS  | FOR EXECUTION BY A NATURAL PERSON Signature: Print Name: Date: FOR EXECUTION BY A CORPORATION, ETC. Company: TH Exploration, LLC as Attornay-in-Fact for David Lee Franklin By: Douglas L DeMartino Its: Attorney-in-Fact  |

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.

OCT - 2 2019

WV Department of Environmental Protectics

| That I, David Lec Franklin, hereby make, name and appoint, Tug Hill Operating,   |
|--|
| LLC, by and through its officers, agents or employees to be my limited power of attorney, for the sole and   |
| specific purpose of executing Well Location Restriction Waivers(s) that permit the conducting of oil or gas  |
| well work and the drilling of additional oil and gas wells on the Knob Creek Well Pad situate in Meade   |
| District, Marshall County, West Virginia, shown on Tax Map 14, as Parcel 33. See attached Exhibit A. Said  |
| waivers shall be of the type shown on the attached Exhibit B, differing only in the api number and   |
| operator well number located on the form.  |
| I the said David Lec Frakki hereby declare that acts done by my said attorney for said   |
| specific and sole purpose shall be as good, valid and effective, to all intents and purposes whatsoever, as if   |
| the same had been made or done by me, and I hereby undertake to ratify whatsoever my attorney shall  |
| lawfully do or cause to be done, by virtue of these presents.  |
| I further direct this Limited Power of Attorney shall be good and valid until a revocation thereof has   |
| been duly executed by the undersigned.   |
| Would for Franklin. (SEAL)   |
| STATE OF West Virginia:  |
| County of Machall to-wit:  |
| The foregoing instrument was acknowledged before me this March, 2018, by   |
| David Lee Franklin.  |
| Given under my hand this 29th day of, 2018.  |
| My commission expires: <u>Jan 18</u> 2000.   |
| (NOTARY SEAL/STAMP REQUIRED)   |
| OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST-VIRGINIA ERIC M. GORDON 514 7th St. Moundaville, WV 26041 My Commission Expires January 18, 2022  My Commission Expires January 18, 2022 |

This Instrument Prepared By:

Eric M. Gordon, Esquire Berry, Kessler, Crutchfield, Taylor & Gordon 514 Seventh Street Moundsville. WV 26041

| API NO. 47-           |                  |
|-----------------------|------------------|
| OPERATOR WELL NO.     | Knob Creek N-2HM |
| Well Pad Name: Knob C | reek             |

#### STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

### WELL LOCATION RESTRICTION WAIVER

|  | rator, Tug Hill Operating, LLC<br>be advised that well work permits are  |   |  | of West Virginia to conduct oil or gas well  |
|--|--|---|--|--|
| Pursuant to V<br>any existing<br>located within<br>larger used to<br>dwellings or<br>provided in su<br>article was pr<br>by written co-<br>clerk of the over<br>variance by the<br>or practices to<br>conditions the | water well or developed spring used in six hundred twenty-five feet of an or to house or shelter dairy cattle or pour agricultural buildings that existed on the section ten of this article or a notice of the ovided, whichever occurs first, and to insent of the surface owner transmitted to the country commission for the country in the secretary from these distance restricts to be employed during well site constructions. | for human or domestic an<br>occupied dwelling structure<br>ultry husbandry. This lim<br>the date a notice to the sur<br>intent to drill a horizontal<br>any dwelling under construction<br>do to the department and a<br>which such property is lo-<br>titions upon submission of<br>fruction, drilling and opera<br>ety and protection of affect | imal consum, or a buildin itation is ap face owner owell as proviuction prior eccorded in teated. Further a plan which tions. The veet persons a | ndred fifty feet measured horizontally from aption. The center of well pads may not be ag two thousand five hundred square feet or pplicable to those wells, developed springs, of planned entry for surveying or staking as ided in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the ermore, the well operator may be granted an identifies the sufficient measures, facilities variance, if granted, shall include terms and and property. The terms and conditions may |
|  | - 1 - 2  | WAIVER  |  |  |
| provisions lis<br>WW-6A and  | ted above, and that I have received cop<br>attachments consisting of pages one (1<br>the well plat, all for proposed well wo<br>West Virginia  | oies of a Notice of Applica<br>) through , ir   | tion, an App<br>scluding the<br>sllows:  | amed on Page WW-6A and the associated<br>lication for a Well Work Permit on Form<br>erosion and sediment control plan, if<br>525,217,67  |
| County:  | Marshall   | UTM NAD 83  | Northing:  | 4,402,272.06   |
| District:  | Meade  | Public Road A   | ccess:   | St. Joseph Road - County Route 21  |
| Quadrangle:  | Glen Easton 7.5'   | Generally used  | farm name:   | David Lee Franklin   |
| Watershed:   | Fish Creek (HUC-10)  |   |  |  |
| I further state<br>issued on tho   | that I have no objection to the planned<br>se materials and I therefore waive all w  | I work described in these n   | naterials, and   | d I have no objection to a permit being<br>Virginia Code § 22-6A-12(a).  |
| WELL SITE  | RESTRICTIONS BEING WAIVER  | D FC<br>Sig   | R EXECU  | TION BY A NATURAL PERSON   |
| □ EXISTE   | NG WATER WELLS   | 197.0   | Print Name:  |  |
|  | TO WILLIAM WELLO   | Da  |  | TON DV 4 CORDOR THON DEC   |
| ☐ DEVEL  | OPED SPRINGS   |   |  | TION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Linda Lee Franklin  |
| DWELI  | LINGS  | Ву  | Douglas L. Del   | Martino  |
| ☐ AGRICU   | JLTURAL BUILDINGS  | Sis   | nature:<br>te: 9/301   | andlets  |
| Well Operato   | r: Tug Hill Operating, LLC   | Signature   |  |  |
| By: David G. Del   |  |   | 724-749-8388   | )  |
| Its: Land Team L   | ead  |   |  | -  |
| соммом   | WEALTH OF PENNSYLVANIA   | Subscribed and sworn bef  | ore me this  | 30th day of Suptember 2019   |

NOTARHAL SEAL

Chester Arthur West IV, Notary Public
Pine Twp., Allegheny County
My Commission Expires Feb. 10, 2020

STREET PENNSTIVANIA ASSOCIATION OF NOTARIES

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.

2-10-2020

My Commission Expires

RECEIVED Gas OCT - 2 2019

Notary Public

WV Department of Environmental Protection

That I, Linda Ce Franklin, hereby make, name and appoint, Tug Hill Operating, LLC, by and through its officers, agents or employees to be my limited power of attorney, for the sole and specific purpose of executing Well Location Restriction Waivers(s) that permit the conducting of oil or gas well work and the drilling of additional oil and gas wells on the Knob Creek Well Pad situate in Meade District, Marshall County, West Virginia, shown on Tax Map 14, as Parcel 33. See attached **Exhibit A.** Said waivers shall be of the type shown on the attached **Exhibit B,** differing only in the api number and operator well number located on the form.

I the said <u>Inda Lee Franklin</u> hereby declare that acts done by my said attorney for said specific and sole purpose shall be as good, valid and effective, to all intents and purposes whatsoever, as if the same had been made or done by me, and I hereby undertake to ratify whatsoever my attorney shall lawfully do or cause to be done, by virtue of these presents.

I further direct this Limited Power of Attorney shall be good and valid until a revocation thereof has been duly executed by the undersigned.

Linda See Franklin (SEAL)

STATE OF Wast Virgains:

County of MArshall, to-wit:

The foregoing instrument was acknowledged before me this Myday of March, 2018, by Lunda Lee Franklin.

Given under my hand this 29th day of March, 2018.

My commission expires: 

Tan 18 (2002)

—' RECEIVED Office of Oil and Gas OFT - 2 2019

(NOTARY SEAL/STAMP REQUIRED)

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
ERIC M. GORDON
514 7th St.
Moundsville, WV 26041
My Commission Expires January 18, 2022

WV Department of WV Department and Protection Environmental Protection

Notary Public for the aforesaid County and/or State

#### This Instrument Prepared By:

Eric M. Gordon, Esquire
Berry, Kessler, Crutchfield, Taylor & Gordon
514 Seventh Street
Moundsville, WV 26041

| API NO. 47            |                  |
|-----------------------|------------------|
| OPERATOR WELL NO.     | Knob Creek N-2HM |
| Well Pad Name: Knob C | reek             |

#### STATE OF WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

| The well ope<br>work. Please   | erator, Tug HIII Operating, LLC<br>be advised that well work permits are  | is applying for a perme<br>e valid for twenty-four   | nit from the State<br>(24) months.   | e of West Virginia to conduct oil or gas well   |  |
|--|---|--|--|---|--|
| Pursuant to Vany existing located within larger used to dwellings or provided in sarticle was publy written exclerk of the evariance by the conditions the c | water well or developed spring used<br>n six hundred twenty-five feet of an or<br>to house or shelter dairy cattle or pot<br>agricultural buildings that existed on<br>ection ten of this article or a notice of<br>rovided, whichever occurs first, and to<br>onsent of the surface owner transmitt<br>county commission for the county in<br>the secretary from these distance restrans<br>to be employed during well site cons | for human or domestic<br>occupied dwelling struc-<br>bultry husbandry. This<br>the date a notice to the<br>fintent to drill a horizor<br>o any dwelling under of<br>ted to the department at<br>which such property<br>ictions upon submission<br>truction, drilling and of<br>fety and protection of as<br>well as technical require- | c animal consuments of a building limitation is appeared to the surface owner and recorded in the surface of a plan which perations. The suffected persons a rements.  | indred fifty feet measured horizontally from aption. The center of well pads may not be ing two thousand five hundred square feet or opplicable to those wells, developed springs, of planned entry for surveying or staking as ided in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the ermore, the well operator may be granted an identifies the sufficient measures, facilities variance, if granted, shall include terms and and property. The terms and conditions may |  |
| T Made to East Normal At   | nominative recognises (10 hamalan and 11 at Ti  | WAIVE  |  | amed on Page WW-6A and the associated   |  |
| WW-6A and<br>required, and<br>State:<br>County:<br>District:<br>Quadrangle:<br>Watershed:<br>I further state   | attachments consisting of pages one ( the well plat, all for proposed well we west Virginia Marshall Meade Glen Easton 7.5° Fish Creek (HUC-10) that I have no objection to the planne  | (1) through ork on the tract of land UTM NAI UTM NAI Public Ros Generally  | ce of Application, an Application for a Well Work Permit on For including the erosion and sediment control plan, if to fland as follows:  TM NAD 83 Easting:  TM NAD 83 Northing:  Jublic Road Access:  enerally used farm name:  David Lee Franklin  Deed in these materials, and I have no objection to a permit being etions listed under West Virginia Code § 22-6A-12(a). |   |  |
| WELL SITE  | RESTRICTIONS BEING WAIVE  |  | FOR EXECU  | TION BY A NATURAL PERSON  |  |
| *Please check  | k all that apply  |  | Signature:<br>Print Name:  |   |  |
| □ EXISTI   | NG WATER WELLS  |  | Date:  |   |  |
| □ DEVEL  | OPED SPRINGS  |  |  | TION BY A CORPORATION, ETC.   |  |
| DWELL  | LINGS   |  | By: Douglas L. De  | oploration, LLC as Attorney-in-Fact for Mark H. Fox Martino   |  |
|  |   |  | Its: Attorney-in-Fac   | at .  |  |
| LI AGRICI  | ULTURAL BUILDINGS   |  | Signature: A   |   |  |
| Well Operato   | Tug Hill Operating, LLC   | Signa  |  | 20101   |  |
| By: David G. Det   |   | Telen  | hone: 724-749-8388   |   |  |
| Its: Land Team L   | _ead  |  |  |   |  |
| Se<br>City of  | NOTARIAL SEAL SEAL PITTER NOTARIAL SEAL SEAL SEAL SEAL SEAL SEAL SEAL SE  | Subscribed and Sworn My Commission Exp   | )  | Notary Public   |  |

Oil and Gas Privacy Notice:

The Office of 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.

OCT -2 2019

WV Department of Environmental Protection

4705102279

| That I, MARK H. Fox, hereby make, name and appoint, Tug Hill Operating,  |
|--|
| LLC, its successors and assigns, by and through its officers, agents or employees to be my limited power of    |
| attorney, for the sole and specific purpose of executing Well Location Restriction Waivers(s) waiving all well |
| site restrictions listed under West Virginia Code 22-6A-12(a) for the Knob Creek Well Pad situate in Meade     |
| District, Marshall County, West Virginia, located on Tax Map 14, Parcel 33 and depicted on the attached        |
| Exhibit A. Said waivers shall be of the type shown on the attached Exhibit B.                                  |

I the said MARK IT. Fox hereby declare that acts done by my said attorney for said specific and sole purpose shall be as good, valid and effective, to all intents and purposes whatsoever, as if the same had been made or done by me, and I hereby undertake to ratify whatsoever my attorney shall lawfully do or cause to be done, by virtue of these presents.

I further direct this Limited Power of Attorney shall be good and valid until a revocation thereof has been duly executed by the undersigned.

Mark H. Fox 3-24-18 (SEAL)

STATE OF West Virginia:

COUNTY OF MACS MALL, to-wit:

The foregoing instrument was acknowledged before me this Marin, 2018, by

MARK H. Fox

Given under my hand this 24th day of \_\_\_\_\_\_\_, 2018.

My commission expires: Jan 18, 2002

(NOTARY SEAL/STAMP REQUIRED)



Notary Public for the aforesaid County and/or State

RECEIVED
Office of Oil and Gas
OCT - 2 2019
W Department of
Environmental Protection

#### This Instrument Prepared By:

Eric M. Gordon, Esquire
Berry, Kessler, Crutchfield, Taylor & Gordon
514 Seventh Street
Moundsville, WV 26041
(304) 845-2580

| API NO. 47-           |                  |
|-----------------------|------------------|
| OPERATOR WELL NO.     | Knob Creek N-2HM |
| Well Pad Name: Knob C | reek             |

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

### WELL LOCATION RESTRICTION WAIVER

|   | rator, Tug Hill Operating, LLC is app<br>be advised that well work permits are valid to  |   | e of West Virginia to conduct oil or gas well  |  |  |  |
|---|--|---|--|--|--|--|
| Pursuant to V<br>any existing v<br>located within<br>larger used to<br>dwellings or a<br>provided in searticle was pro-<br>by written co-<br>clerk of the co-<br>variance by the<br>or practices to<br>conditions the | water well or developed spring used for hun<br>is a six hundred twenty-five feet of an occupie<br>to house or shelter dairy cattle or poultry has<br>agricultural buildings that existed on the dat<br>action ten of this article or a notice of intent in<br>ovided, whichever occurs first, and to any donsent of the surface owner transmitted to the<br>country commission for the country in which<br>he secretary from these distance restrictions to<br>be employed during well site construction   | man or domestic animal consum<br>d dwelling structure, or a building<br>usbandry. This limitation is ap-<br>te a notice to the surface owner<br>to drill a horizontal well as provi-<br>welling under construction prior<br>he department and recorded in a<br>such property is located. Furth-<br>upon submission of a plan which<br>the drilling and operations. The of<br>d protection of affected persons a | ndred fifty feet measured horizontally from aption. The center of well pads may not be ag two thousand five hundred square feet or oplicable to those wells, developed springs, of planned entry for surveying or staking as ided in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the ermore, the well operator may be granted an identifies the sufficient measures, facilities variance, if granted, shall include terms and and property. The terms and conditions may |  |  |  |
|   | The second secon | WAIVER  |  |  |  |  |
| provisions list<br>WW-6A and<br>required, and<br>State:   | omey-h-foot. TH Euleration, LLC, hereby state that I have rected above, and that I have received copies of attachments consisting of pages one (1) through the well plat, all for proposed well work on the West Virginia  | ad the Instructions to Persons Na a Notice of Application, an App ugh, including the the tract of land as follows: UTM NAD 83 Easting:  | lication for a Well Work Permit on Form  |  |  |  |
| County:   | Marshall   | UTM NAD 83 Northing:  | 4,402,272.06<br>St. Joseph Road - County Route 21  |  |  |  |
| District:   | Meade Classification 2.5   | Public Road Access:   |  |  |  |  |
| Quadrangle:<br>Watershed:   | Fish Creek (HUC-10)  | Generally used farm name:   | David Lee Pranklin   |  |  |  |
| I further state<br>issued on thos   | that I have no objection to the planned work<br>se materials and I therefore waive all well sit  | e restrictions listed under West  | Virginia Code § 22-6A-12(a).   |  |  |  |
|   | RESTRICTIONS BEING WAIVED all that apply   | Signature:  | TION BY A NATURAL PERSON   |  |  |  |
| ☐ EXISTIN   | NG WATER WELLS   | Date:   | Print Name:  |  |  |  |
| ☐ DEVEL   | OPED SPRINGS   | FOR EXECU   | TION BY A CORPORATION, ETC.  pploration, LLC as Attorney-in-Fact for Mary A. Fox   |  |  |  |
| DWELL   | LINGS  |   | By: Douglas L. DeMartino   |  |  |  |
| D ACRICI  | II TUDAL DINI DINICE   | Its: Attorney-in-Fac  |  |  |  |  |
| LI AGRICO   | JLTURAL BUILDINGS  | Signature: S  | 19010  |  |  |  |
| Well Operator   | Tug Hill Operating, LLC  | Signature:  | 20101  |  |  |  |
| By: David G. DeL  |  | Telephone: 724-749-8388   |  |  |  |  |
| Its: Land Team L  | ead  |   |  |  |  |  |
| Oil and Gas Pr<br>The Office of O<br>personal inform<br>or regulatory re  | REEN A STEAD - Notary Public Washington County Immission Expires Jan 28, 2023 Immission Number 1259926  My Crivacy Notice: Dil and Gas processes your personal information, lation may be disclosed to other State agencies or   | r third parties in the normal course of<br>Act requests. Our office will approp   | Notary Public  126 23  The number, as part of our regulatory duties. Your of business or as needed to comply with statutory oriately secure your personal information. If you  |  |  |  |

Office of Oil and Gas

OCT - 2 2019

WV Department of Environmental Protection

4705102279

| That I, Mary A. Fox, hereby make, name and appoint, Tug Hill Operating,   |
|---|
| LLC, its successors and assigns, by and through its officers, agents or employees to be my limited power of                               |
| attorney, for the sole and specific purpose of executing Well Location Restriction Waivers(s) waiving all well                            |
| site restrictions listed under West Virginia Code 22-6A-12(a) for the Knob Creek Well Pad situate in Meade                                |
| District, Marshall County, West Virginia, located on Tax Map 14, Parcel 33 and depicted on the attached                                   |
| Exhibit A. Said waivers shall be of the type shown on the attached Exhibit B.   |
| I the said Macy A. Fox hereby declare that acts done by my said attorney for said   |
| specific and sole purpose shall be as good, valid and effective, to all intents and purposes whatsoever, as if                            |
| the same had been made or done by me, and I hereby undertake to ratify whatsoever my attorney shall                                       |
| lawfully do or cause to be done, by virtue of these presents.   |
| I further direct this Limited Power of Attorney shall be good and valid until a revocation thereof has                                    |
| been duly executed by the undersigned.  |
|   |
| Mary à De (SEAL)  |
|   |
| •   |
| STATE OF West Virginia:   |
| STATE OF West Virginia: COUNTY OF MArshall to-wit:  |
| STATE OF West Virginia:  COUNTY OF Marshall, to-wit:  The foregoing instrument was acknowledged before me this 300 day of March, 2018, by |
|   |
| The foregoing instrument was acknowledged before me this 30 day of March, 2018, by Mary A. Fac.   |
| The foregoing instrument was acknowledged before me this 300 day of March, 2018, by Mary A. Fac.  |
| The foregoing instrument was acknowledged before me this 30 day of March, 2018, by Mary A. Fac.   |

Eric M. Gordon, Esquire Berry, Kessler, Crutchfield, Taylor & Gordon 514 Seventh Street Moundsville, WV 26041 (304) 845-2580 T:\MSAston\Limited Power of Attorney\EMG.Limited.POA.wpd

API NO. 47-OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

#### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

|   |  | ng Hill Operating, LLC<br>and that well work pe  |   |  |  | of West Virginia to conduct oil or gas well   | t ·   |
|---|--|--|---|--|--|---|---|
| any existing located within larger used to dwellings or provided in starticle was proby written or clerk of the cvariance by the or practices to conditions the | West Virg<br>water we<br>in six hund<br>to house of<br>agriculture<br>ection ten<br>rovided, versent of<br>county con<br>the secretar<br>to be emple<br>department | inia Code § 22-6A: Il or developed spridred twenty-five fetor shelter dairy catter al buildings that extended the strategy of this article or a whichever occurs fir the surface owner that the surface owner to the cury from these distant loyed during well s | ng used for hur<br>et of an occupied<br>le or poultry he<br>isted on the data<br>notice of intent to<br>st, and to any to<br>transmitted to the<br>bounty in which<br>nee restrictions to<br>ite construction,<br>re the safety and | man or domes if dwelling strusbandry. The e a notice to t o drill a horize velling under the department use the property the property the department of the  | tic animal consumucture, or a building is limitation is apple surface owner ontal well as proviconstruction prior and recorded in the is located. Further on of a plan which operations. The varieties of the construction of a plan which operations are affected persons are sufficiently in the construction of | ndred fifty feet measured horizontally fron option. The center of well pads may not b ng two thousand five hundred square feet of plicable to those wells, developed springs of planned entry for surveying or staking a ded in subsection (b), section sixteen of thi to that date. This limitation may be waive the real property records maintained by the remore, the well operator may be granted identifies the sufficient measures, facilitie variance, if granted, shall include terms and and property. The terms and conditions may | e<br>r<br>s<br>s<br>s<br>i<br>i<br>e<br>a<br>a<br>s |
|   |  |  |   | VAIVI  |  |   |   |
| provisions lis<br>WW-6A and   | ted above<br>attachmen   | e, and that I have recents consisting of page<br>plat, all for proposed  | te that I have rea<br>eived copies of<br>ges one (1) throu  | d the Instruction of Appendix of Appendix of Appendix of Instruction of Instructi | ions to Persons Na<br>pplication, an App<br>, including the  | med on Page WW-6A and the associated lication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67 4,402,272.06 St. Joseph Road - County Route 21   |   |
| Quadrangle:   | Glen Easto   | in 7.5'  |   |  | v used farm name:  |   | -   |
| Watershed:  | Fish Creek   |  | -   |  | asea tarm mano.  |   | -   |
| I further state   | that I hav   | ve no objection to th  | e planned work  | described in t   | hese materials, and  | I have no objection to a permit being   |   |
| issued on thos  | se materia   | als and I therefore w  | aive all well site  | restrictions li  | isted under West   | Virginia Code § 22-6A-12(a).  |   |
| *Please check   |  | ICTIONS BEING  | WAIVED  |  | Signature:   | TION BY A NATURAL PERSON  |   |
| □ EXISTIN   | NG WAT   | TER WELLS  |   |  | Print Name:<br>Date:   |   |   |
| □ DEVEL   | OPED S   | PRINGS   |   |  |  | TION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Paul G. Fox  |   |
| <ul><li>DWELI</li></ul>   | LINGS  |  |   |  | By: Douglas L. Del   |   |   |
| ☐ AGRICU  | JLTURA   | L BUILDINGS  |   |  | Its: Attorney-in-Factorial Signature: Dates, 9120  | 200   |   |
| Well Operator   | r: Tug Hill Op   | erating, LLC   |   | Sign   | ature:   | 201-1   |   |
| By: David G. DeL  | allo   |  |   |  | phone: 724-749-8388  |   |   |
| Its: Land Team L  | ead  |  |   |  |  |   |   |
| City of My Com Oil and Gas Pr The Office of Opersonal inform or regulatory re   | NOTAF<br>ean Cotted<br>Pittsburg<br>mission E<br>rivacy No<br>Oil and Ga<br>nation may   | s processes your person<br>be disclosed to other<br>ts, including Freedom  | My Co   | ommission Ex<br>such as name, a<br>third parties in<br>act requests. Ou  | address and telephor<br>the normal course our<br>office will approp  | Notary Public   | of Oll on   |
|   |  |  |   |  |  |   | OCT - artment                                       |

W Department of Environmental Protection

4705102279

| •  | make, name and appoint, Tug Hill Operating,       |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|
| LLC, its successors and assigns, by and through its officers,  | agents or employees to be my limited power of     |  |  |  |  |  |  |
| attorney, for the sole and specific purpose of executing Well Location Restriction Waivers(s) waiving all well   |   |  |  |  |  |  |  |
| site restrictions listed under West Virginia Code 22-6A-12(a   | ) for the Knob Creek Well Pad situate in Meade    |  |  |  |  |  |  |
| District, Marshall County, West Virginia, located on Tax M   | ap 14, Parcel 33 and depicted on the attached     |  |  |  |  |  |  |
| Exhibit A. Said waivers shall be of the type shown on the  | attached <b>Exhibit B.</b>                        |  |  |  |  |  |  |
| I the said Rul G. Fox hereby de-   | clare that acts done by my said attorney for said |  |  |  |  |  |  |
| specific and sole purpose shall be as good, valid and effect   | ve, to all intents and purposes whatsoever, as if |  |  |  |  |  |  |
| the same had been made or done by me, and I hereby u   | ndertake to ratify whatsoever my attorney shall   |  |  |  |  |  |  |
| lawfully do or cause to be done, by virtue of these presents   | •   |  |  |  |  |  |  |
| I further direct this Limited Power of Attorney shall  | be good and valid until a revocation thereof has  |  |  |  |  |  |  |
| been duly executed by the undersigned.   | •   |  |  |  |  |  |  |
| Paul St. Fest 3-24-18 (SEAL)   |   |  |  |  |  |  |  |
| _  |   |  |  |  |  |  |  |
| STATE OF West Virginia:  |   |  |  |  |  |  |  |
| STATE OF West Virginia: COUNTY OF Marshall to-wit:   |   |  |  |  |  |  |  |
|  | fore me this ੀ ਪਿਤਕਰ, 2018, by                    |  |  |  |  |  |  |
| COUNTY OF MArshall to-wit:   | fore me this ੀ ਰੀay of <u>ਿਨਿਕਨ</u> , 2018, by    |  |  |  |  |  |  |
| COUNTY OF Marshall to-wit:  The foregoing instrument was acknowledged being the country of the c |   |  |  |  |  |  |  |
| COUNTY OF MArshall to-wit:  The foregoing instrument was acknowledged be   | <u>たん</u> , 2018.                                 |  |  |  |  |  |  |
| COUNTY OF Marshall to-wit:  The foregoing instrument was acknowledged being the country of the c |   |  |  |  |  |  |  |

### This Instrument Prepared By:

Eric M. Gordon, Esquire
Berry, Kessler, Crutchfield, Taylor & Gordon
514 Seventh Street
Moundsville, WV 26041
(304) 845-2580

T:\MSAston\Limited Power of Attorney\EMG.Limited.POA.wpd

| API NO. 47-           |                  |
|-----------------------|------------------|
| OPERATOR WELL NO.     | Knob Creek N-2HM |
| Well Pad Name: Knob C | reek             |

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

| The well ope<br>work. Please   | erator, _Tug Hill Operating, LLC<br>be advised that well work permits   | is applying for a per<br>are valid for twenty-fou   | rmit from the State<br>r (24) months.   | of West Virginia to conduct oil or gas well   | (i |  |
|--|---|---|---|---|----|--|
| Pursuant to V<br>any existing of<br>located within<br>larger used to<br>dwellings or a<br>provided in searticle was pro-<br>by written co-<br>clerk of the co-<br>variance by the<br>or practices to<br>conditions the | water well or developed spring us<br>n six hundred twenty-five feet of a<br>o house or shelter dairy cattle or<br>agricultural buildings that existed<br>ection ten of this article or a notice<br>rovided, whichever occurs first, and<br>onsent of the surface owner transm<br>county commission for the county<br>he secretary from these distance re-<br>to be employed during well site co | ed for human or domes<br>n occupied dwelling str<br>poultry husbandry. The<br>on the date a notice to the<br>of intent to drill a horize<br>it to any dwelling under<br>nitted to the department<br>in which such property<br>strictions upon submissi<br>instruction, drilling and<br>safety and protection of | tic animal consunucture, or a buildir is limitation is ap he surface owner contal well as proviconstruction prior and recorded in the is located. Further on of a plan which operations. The varieties of the propertions of the propertions of the propertions of the propertions of the properties of the | ndred fifty feet measured horizontally from pition. The center of well pads may not be ag two thousand five hundred square feet or plicable to those wells, developed springs, of planned entry for surveying or staking as ded in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the ermore, the well operator may be granted a identifies the sufficient measures, facilities variance, if granted, shall include terms and and property. The terms and conditions may |    |  |
|  |   | WAIVI   |   |   |    |  |
| WW-6A and  | ted above, and that I have received   | I have read the Instructi<br>copies of a Notice of Ap<br>e (1) through<br>work on the tract of land   | ions to Persons Na<br>pplication, an App<br>, including the   | med on Page WW-6A and the associated<br>lication for a Well Work Permit on Form<br>erosion and sediment control plan, if  |    |  |
| County:  | Marshall  |   | D 83 Northing:  | 4,402,272.06  | -  |  |
| District:  | Meade   |   | ad Access:  | St. Joseph Road - County Route 21   | -  |  |
|  | Glen Easton 7.5'  |   | used farm name:   |   | -  |  |
| issued on thos   | Fish Creek (HUC-10) that I have no objection to the plar se materials and I therefore waive a RESTRICTIONS BEING WAD  | dl well site restrictions l   | isted under West \  | I I have no objection to a permit being<br>Virginia Code § 22-6A-12(a).   |    |  |
| *Please check  | call that apply   |   | Signature:  | 145 H 5 30 1 W 1 C 30 1 C 5 C 5 C 5 C 5 C 5 C 5 C 5 C 5 C 5 C   |    |  |
| □ EXISTIN  | NG WATER WELLS  |   | Print Name:   |   |    |  |
|  |   |   | Date:   | EVON DV 4 CORPOR (TION ETC.   |    |  |
| ☐ DEVEL  | OPED SPRINGS  |   | FOR EXECUTION BY A CORPORATION, ETC. Company: TH Exploration, LLC   |   |    |  |
| DWELI  | LINGS   |   | By: Douglas L. DeMartino, Esq.  |   |    |  |
|  |   |   | Its: Attorney-in-Fac  | L   |    |  |
| ☐ AGRICU   | JLTURAL BUILDINGS   |   | Signature:  |   |    |  |
| W. II O  | * C. LW *   |   |   | 89/2019   |    |  |
| Well Operator By: David G. Del.  | Tug Hill Operating, LLC   |   | ature:  |   |    |  |
| Its: Land Team L   |   | Tele  | phone: 524-749-8388   |   |    |  |
| Chester  | NWEALTH OF BENNSYLVANIA<br>NOTARIAL SEAL<br>Arthur West IV, Notary Public<br>e Twp., Allegheny County<br>mission Expires Feb. 10, 2020  | Subscribed and swo  | 29  | Notary Public   |    |  |
| Oil and Gas Po<br>The Office of O<br>personal inform<br>or regulatory re   | NNSYLVANIA ASSOCIATION OF NOTARIES  Oil and Gas processes your personal in nation may be disclosed to other State   | agencies or third parties in<br>formation Act requests. Or  | address and telephon<br>the normal course our office will approp  | re number, as part of our regulatory duties. Your of business or as needed to comply with statutory ritately secure your personal information. If you officer at depprivacyofficer@wv.gov.  |    |  |

Office of Oil and Gas

OCT - 2 2019

WV Department of Environmental Protection

4705102279

WW-6RW (1-12) API NO. 47OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

| Z  | VELL LOCATIO   | N REST   | RICTI  | ON WAIVER   |  |
|--|--|--|--|---|--|
|  | rator, Tug Hill Operating, LLC is a be advised that well work permits are val  | applying for a perm<br>id for twenty-four (  | nit from the State (24) months.  | of West Virginia to conduct oil or gas wel  |  |
| Pursuant to V<br>any existing located within<br>larger used to<br>dwellings or a<br>provided in so<br>article was pr<br>by written co-<br>clerk of the ovariance by the<br>or practices to<br>conditions the | water well or developed spring used for<br>a six hundred twenty-five feet of an occu-<br>be house or shelter dairy cattle or poultry<br>agricultural buildings that existed on the<br>action ten of this article or a notice of inte-<br>ovided, whichever occurs first, and to any<br>insent of the surface owner transmitted to<br>county commission for the county in which<br>he secretary from these distance restriction<br>to be employed during well site construction | human or domesti<br>pied dwelling struct<br>y husbandry. This<br>date a notice to the<br>ent to drill a horizon<br>y dwelling under co<br>to the department a<br>ich such property in<br>ns upon submission<br>tion, drilling and o<br>and protection of a | c animal consumerature, or a building a limitation is apple surface owner of the truction prior and recorded in the surface of a plan which perations. The varieties of a proper surface of the perations of a prior the perations of a prior the varieties of a plan which perations. | ndred fifty feet measured horizontally from aption. The center of well pads may not be get two thousand five hundred square feet of plicable to those wells, developed springs of planned entry for surveying or staking a ded in subsection (b), section sixteen of this to that date. This limitation may be waived he real property records maintained by the termore, the well operator may be granted a identifies the sufficient measures, facilities ariance, if granted, shall include terms and and property. The terms and conditions may |  |
| merade msara   | nice, boliding and indefinition, as we   | WAIVE  |  |   |  |
| I, Thomas John Feet, by my   | Altarney-In-Fact, TH Exploration, LLC, hereby state that I have  | read the Instruction   | ns to Persons Na   | med on Page WW-6A and the associated  |  |
| WW-6A and  | ted above, and that I have received copies<br>attachments consisting of pages one (1) the<br>the well plat, all for proposed well work of<br>West Virginia   | nrough<br>on the tract of land   | , including the  | erosion and sediment control plan, if   |  |
| County:  | Marshall   |  | 0 83 Northing:   | 525,217,67<br>4,402,272.06  |  |
| District:  | Meade  | Public Roa   |  | St. Joseph Road - County Route 21   |  |
| Quadrangle:  | Glen Easton 7,5'   |  | used farm name:  | 10 10 0 10 10 10 10 10 10 10 10 10 10 10  |  |
| Watershed:   | Fish Creek (HUC-10)  |  |  |   |  |
| I further state  | that I have no objection to the planned wase materials and I therefore waive all well  | ork described in th  | ese materials, and   | I I have no objection to a permit being   |  |
| WELL SITE  | RESTRICTIONS BEING WAIVED all that apply   | inte resultenents lis  |  | FION BY A NATURAL PERSON  |  |
| ☐ EXISTING WATER WELLS   |  |  | Print Name: Date:  |   |  |
| ☐ DEVELOPED SPRINGS  |  |  | FOR EXECUTION BY A CORPORATION, ETC. Company: TH Exploration, LLC as Attorney-in-Fact for Thomas John Fox  |   |  |
| • DWELI  | LINGS  |  | By: Douglas L. DeMartino   |   |  |
| ☐ AGRICU   | JLTURAL BUILDINGS  |  | Its: Attorney-in-Factories: Signature:   |   |  |

COMMONWEALTH OF PENNSYLVANIA

NOTABLIAL SEAL
Chester Arthur West IV, Notary Public
Pine Twp., Allegheny County
My Commission Expires Feb. 10, 2020
MEMBER. PENNSYLVANIA ASSOCIATION OF NOTARIES

Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Subscribed and sworn before me this 30h day of September 2019

Notary Public

My Commission Expires 2.0-1000

Signature:

Telephone:

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.

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NOV 26 2019

WV Department of Environmental Protection Marshall County
Jan Pest, Clerk
Instrument 1459573
10/01/2019 @ 01:06:51 PM
MISCELLANEOUS
Book 40 @ Page 41
Pages Recorded 1
Recording Cost \$ 11.00

## 4705102279

WW-6RW (1-12) API NO. 47OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

WELL LOCATION RESTRICTION WAIVER The well operator, Tug Hill Operating, LLC is applying for a permit from the State of West Virginia to conduct oil or gas well work. Please be advised that well work permits are valid for twenty-four (24) months. Well Location Restrictions Pursuant to West Virginia Code § 22-6A-12(a), 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. WAIVER I, Devid Lob Franklin, by my Alliamory-In-Fact, TH Exploration, LLC, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form , including the erosion and sediment control plan, if WW-6A and attachments consisting of pages one (1) through required, and the well plat, all for proposed well work on the tract of land as follows: State: West Virginia UTM NAD 83 Easting: County: Marshall UTM NAD 83 Northing: 4,402,272.06 District: Meade Public Road Access: St. Joseph Road - County Route 21 Quadrangle: Glen Easton 7.5' Generally used farm name: David Lee Franklin Watershed: Fish Creek (HUC-10) I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials and I therefore waive all well site restrictions listed under West Virginia Code § 22-6A-12(a). WELL SITE RESTRICTIONS BEING WAIVED FOR EXECUTION BY A NATURAL PERSON \*Please check all that apply Signature: Print Name: ☐ EXISTING WATER WELLS FOR EXECUTION BY A CORPORATION, ETC. ☐ DEVELOPED SPRINGS Company: TH Exploration, LLC as Attorney-in-Fact for David Lee Franklin By: Douglas L. DeMartino DWELLINGS Its: Attorney-in-Fact ☐ AGRICULTURAL BUILDINGS Signature: Date: 9130 Well Operator: Tug Hill Operating, LLC Signature By: David G. DeLallo 724-749-8388 Telephone: Its: Land Team Lead COMMONWEALTH OF PENNSYLVANIA fore me this 3 Subscribed and sworn b A OTARRAL SEAL Chester Arthur West IV, Notary Public Pine Twp., Allegheny County My Commission Expires Feb. 10, 2020 Notary Public IEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES 2-10-2020 My Commission Expires

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@ww.gov.

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NOV 2 6 2019

WV Department of Environmental Protection Marshall County
Jan Pest, Clerk
Instrument 1459574
10/01/2019 @ 01:06:52 PM
MISCELLANEOUS
Book 40 @ Page 42
Pages Recorded 1
Recording Cost \$ 11.00

4705102279

WW-6RW (1-12)

The well operator, Tug Hill Operating, LLC

work. Please be advised that well work permits are valid for twenty-four (24) months.

API NO. 47OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

is applying for a permit from the State of West Virginia to conduct oil or gas well

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

| Pursuant to V<br>any existing<br>located within<br>larger used to<br>dwellings or<br>provided in so<br>article was pr<br>by written co<br>clerk of the ovariance by the<br>or practices to<br>conditions the | water well or developed spring used for<br>in six hundred twenty-five feet of an occu-<br>to house or shelter dairy cattle or poultr<br>agricultural buildings that existed on the<br>ection ten of this article or a notice of int<br>rovided, whichever occurs first, and to ar<br>onsent of the surface owner transmitted<br>county commission for the county in which<br>he secretary from these distance restriction<br>to be employed during well site construc- | r human or domestic animal upied dwelling structure, or ry husbandry. This limitate date a notice to the surface tent to drill a horizontal welling under construct to the department and reconscipled such property is located on supon submission of a potion, drilling and operation of affected | al consumpt a building to a bu | dred fifty feet measured horizontally from ption. The center of well pads may not be g two thousand five hundred square feet or blicable to those wells, developed springs, f planned entry for surveying or staking as led in subsection (b), section sixteen of this to that date. This limitation may be waived he real property records maintained by the ermore, the well operator may be granted a identifies the sufficient measures, facilities ariance, if granted, shall include terms and and property. The terms and conditions may |
|--|--|---|--|---|
|  |  | WAIVER  |  |   |
| provisions lis<br>WW-6A and  | ted above, and that I have received copie attachments consisting of pages one (1) the well plat, all for proposed well work West Virginia  | re read the Instructions to Person of a Notice of Application through , inclu   | n, an Appli<br>ading the e<br>ws:  | ication for a Well Work Permit on Form  |
| County:  | Marshall   | UTM NAD 83 No   | _  | 4,402,272.06  |
| District:  | Meade  | Public Road Acce  |  | St. Joseph Road - County Route 21   |
| Quadrangle:  | Glen Easton 7.51   | Generally used far  | m name:  | David Lee Franklin  |
| issued on tho  | Fish Creek (HUC-10)  that I have no objection to the planned v se materials and I therefore waive all well E RESTRICTIONS BEING WAIVED   | Il site restrictions listed und   | er West V  | I have no objection to a permit being firginia Code § 22-6A-12(a).  |
|  | k all that apply   | Signa   |  | ION BY A NATURAL PERSON   |
|  | NG WATER WELLS   |   | Name:  |   |
| ☐ DEVEL  | OPED SPRINGS   |   |  | TION BY A CORPORATION, ETC. Foration, LLC as Attorney-in-Fact for Linda Lee Franklin  |
| • DWELI  | LINGS  | By: <u>D</u>  | ouglas L. DeM  |   |
| ☐ AGRICU   | ULTURAL BUILDINGS  | Signa   | ture:  | 2018 INS  |
| Well Operato   | T: Tug Hill Operating, LLC   | Signature.  | 2  |   |
| By: David G. Del   | allo   | Telephone:  | 24-749-8388  |   |
| Its: Land Team L   | ead  |   |  |   |
| . Chester<br>! Pine<br>My Comi   | Arthur West IV, Notary Public by Twp., Allegheny County mission Expires Feb. 10, 2020  MNSYLVANIA ASSOCIATION OF NOTARIES  M. STIVANIA ASSOCIATION OF NOTARIES   | ubscribed and sworn before  fy Commission Expires   | 五五   | Notary Public   |
|  | Oil and Gas processes your personal informa  | tion such as name address on  | d talanhan   | a number of such of such as a late of 1 at 17   |

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 <a href="depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

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WV Department of Environmental Protection Marshall County
Jan Pest, Clerk
Instrument 1459575
10/01/2019 @ 01:06:53 PM
MISCELLANEOUS
Book 40 @ Page 43
Pages Recorded 1
Recording Cost \$

11.00

4705102279

WW-6RW (1-12)

API NO. 47OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

| The well ope<br>work. Please  | rator, Tug Hill Operating, LLC<br>be advised that well work permits   | is applying for a pern<br>are valid for twenty-four   | nit from the State (24) months.  | of West Virginia t  | o conduct oil or gas well  |
|---|---|---|--|---|--|
| Pursuant to W<br>any existing v<br>located within<br>larger used to<br>dwellings or a<br>provided in se | n Restrictions Vest Virginia Code § 22-6A-12(a), water well or developed spring us a six hundred twenty-five feet of a behouse or shelter dairy cattle or agricultural buildings that existed ection ten of this article or a notice                        | ed for human or domesting occupied dwelling structured poultry husbandry. This on the date a notice to the of intent to drill a horizon         | ic animal consumpeture, or a building limitation is apple surface owner ontal well as provice.   | ption. The center of<br>g two thousand five<br>policable to those we<br>f planned entry for<br>led in subsection () | of well pads may not be<br>the hundred square feet or<br>yells, developed springs,<br>a surveying or staking as<br>b), section sixteen of this |
| by written co<br>clerk of the c<br>variance by th<br>or practices to<br>conditions the                  | ovided, whichever occurs first, and usent of the surface owner transmounty commission for the county ne secretary from these distance response to be employed during well site control department requires to ensure the unce, bonding and indemnification, | itted to the department a<br>in which such property<br>strictions upon submission<br>instruction, drilling and of<br>safety and protection of a | and recorded in the is located. Further n of a plan which operations. The varieties are affected persons an irements.  | ne real property re<br>rmore, the well op<br>identifies the suffi<br>ariance, if granted                            | cords maintained by the<br>erator may be granted a<br>cient measures, facilities<br>shall include terms and                                    |
| I, Douglas L. DeM   | Martino, Esq. hereby state that   | I have read the Instruction   |  | nad on Paga WW  | 6 A and the associated   |
| WW-6A and required, and State:  | ted above, and that I have received<br>attachments consisting of pages on<br>the well plat, all for proposed well<br>West Virginia  | copies of a Notice of App<br>e (1) through<br>work on the tract of land<br>UTM NAI  | plication, an Appli<br>, including the e<br>as follows:<br>D 83 Easting:   | ication for a Well verosion and sedime  | Work Permit on Form  |
| County:   | Marshall UTM NAD 83 North  Meade Public Road Access:  Glen Easton 7.5' Generally used farm  |   |  | 4,402,272.06<br>St. Joseph Road - County Route 21   |  |
| District:   |   |   |  |   |  |
| Quadrangle:<br>Watershed:   |   |   | used farm name:  | David Lee Franklin  |  |
| I further state issued on thos  | Fish Creek (HUC-10)<br>that I have no objection to the plar<br>se materials and I therefore waive a   | Ill well site restrictions lis  | sted under West V  | 'irginia Code § 22-   | 6A-12(a).  |
|   | RESTRICTIONS BEING WAIT all that apply  | VED   | Signature:   | ION BY A NATU   | JRAL PERSON  |
| ☐ EXISTIN   | NG WATER WELLS  |   | Print Name;<br>Date:   |   |  |
| ☐ DEVEL   | OPED SPRINGS  |   | The second secon |   | PORATION, ETC.   |
| DWELI   | LINGS   |   | By: Douglas L. DeM   |   |  |
| □ AGRICU  | JLTURAL BUILDINGS   |   | Its: Attorney-in-Fact Signature: Date:   | 0 0   |  |
| Well Operator   | r; Tug Hill Operating, LLC  | Signa   |  | Black   |  |
| By: David G. DeL  |   |   | hone: 424-749-8388   |   |  |
| Its: Land Team L  | ead   |   | nono.  |   |  |
| СОММО   | NWEALTH OF BENNSYLVANIA<br>NOTARIAL SEAL  | Subscribed and sworn  | n before me this 3   | day of  | September 2019   |
| My Com  | Arthur West IV, Notary Public<br>e Twp., Allegheny County<br>mission Expires Feb. 10, 2020  | My Commission Exp   |  | er<br>-lores  | Notary Public  |
| The Office of (   | NNSYLVANIA ASSOCIATION OF NOTARIES<br>rivacy Notice:  Dil and Gas processes your personal in<br>nation may be disclosed to other State  | formation, such as name, ac   | ddress and telephone   | e number, as part of  | our regulatory duties. Your  |

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 <a href="depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

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WV Department of Environmental Protection Marshall County
Jan Pest, Clerk
Instrument 1459576
10/01/2019 @ 01:06:54 PM
MISCELLANEOUS
Book 40 @ Page 44
Pages Recorded 1
Recording Cost \$ 11.00

4705102279

WW-6RW (1-12)

API NO. 47-OPERATOR WELL NO. Knob Creek N-2HM Well Pad Name: Knob Creek

### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

| The well ope<br>work. Please  | rator, _Tug Hill Operating, LLC be advised that well work permits   | is applying for a per<br>are valid for twenty-four   | mit from the State (24) months.   | e of West Virginia to conduct oil or gas well   |
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| Pursuant to Vany existing and located within larger used to dwellings or provided in so article was proby written coclerk of the covariance by the or practices to conditions the | water well or developed spring us<br>a six hundred twenty-five feet of a<br>cohouse or shelter dairy cattle or<br>agricultural buildings that existed<br>ection ten of this article or a notice<br>ovided, whichever occurs first, and<br>insent of the surface owner transa-<br>county commission for the county<br>are secretary from these distance re<br>to be employed during well site oc | sed for human or domest<br>in occupied dwelling stru-<br>poultry husbandry. This<br>on the date a notice to the<br>of intent to drill a horized<br>d to any dwelling under of<br>nitted to the department<br>in which such property<br>strictions upon submission<br>construction, drilling and of<br>safety and protection of   | tic animal consumerature, or a building limitation is applied surface owner of the construction prior and recorded in the construction of a plan which coperations. The vaffected persons a suirements. | indred fifty feet measured horizontally from aption. The center of well pads may not be ag two thousand five hundred square feet or oplicable to those wells, developed springs, of planned entry for surveying or staking as ided in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the ermore, the well operator may be granted an identifies the sufficient measures, facilities variance, if granted, shall include terms and and property. The terms and conditions may |
| I, Paul G. Fox, by my All   | omey-in-Fact, TH Exploration, LLC , hereby state that   |  |   | amed on Page WW-6A and the associated   |
| WW-6A and required, and State: County: District: Quadrangle:  | Marshall UTM NA Meade Public Re   |  | , including the   | erosion and sediment control plan, if  525,217.67  4,402,272.06  St. Joseph Road - County Route 21  |
| issued on thos WELL SITE  | Fish Creek (HUC-10) that I have no objection to the plants and I therefore waive at RESTRICTIONS BEING WAI all that apply   | all well site restrictions li  | sted under West   | d I have no objection to a permit being<br>Virginia Code § 22-6A-12(a).<br>TION BY A NATURAL PERSON   |
|   | NG WATER WELLS  |  | Print Name:   |   |
|   | OPED SPRINGS  |  | Date:FOR EXECU  | TION BY A CORPORATION, ETC.   |
|   |   |  |   | ploration, LLC as Attorney-in-Fact for Paul G. Fox  |
| <ul><li>■ DWELLINGS</li><li>□ AGRICULTURAL BUILDINGS</li></ul>  |   |  | Its: Attorney-in-Fact Signature: Our Mode Dates 9[30]20[0]  |   |
|   | r; Tug Hill Operating, LLC  | Sign   | ature:  | 60101   |
| By: David G. Del  |   | Tele   | ohone: 724-749-8388   |   |
| Se<br>City of   | NWEATAR OSPENNSYLVANIA NOTARIAL SEAL ean Cotter, Notary Public Pittsburgh, Allegheny County Imission Expires Oct. 12, 2019  | Subscribed and swon  | )   | 30 day of Septende  Notary Public   |
| Oil and Gas P<br>The Office of (  | rivacy Notice:<br>Oil and Gas processes your personal in  | My Commission Expansion on the sum of the su | ddress and telephor   | ne number, as part of our regulatory duties. Your of business or as needed to comply with statutory   |

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.

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NOV 26 2019

WV Department of **Environmental Protection** 

Marshall County Jan Pest, Clerk Instrument 1459577 10/01/2019 @ 01:06:55 PM MISCELLANEOUS Book 40 @ Page 45 Pages Recorded 1 Recording Cost \$ 11.00 DPS LAND SERVICES CORP 6000 TOWN CENTER BOULEVARD, SUITE 145 CANONSBURG PA 15317-5841

4705102279

WW-6RW (1-12) API NO. 47OPERATOR WELL NO. Knob Creek N-2HM
Well Pad Name: Knob Creek

# STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

|  | erator, _Tug Hill Operating, LLC<br>be advised that well work permits  |   |  | of West Virginia to condu   | ict oil or gas well   |
|--|--|---|--|---|---|
| Pursuant to Vany existing located within larger used to dwellings or provided in so article was proby written coclerk of the evariance by the or practices to conditions the | on Restrictions West Virginia Code § 22-6A-12(a) water well or developed spring us a six hundred twenty-five feet of a consist hundred twenty-five feet of the surface owner transposed to the surface owner transposed the secretary from these distance reports to be employed during well site of the department requires to ensure the ance, bonding and indemnification | sed for human or domes<br>an occupied dwelling str<br>poultry husbandry. The<br>on the date a notice to the<br>of intent to drill a horized<br>to any dwelling under<br>nitted to the department<br>in which such property<br>estrictions upon submission<br>construction, drilling and | tic animal consumulative, or a building is limitation is applied by the surface owner of construction prior and recorded in the surface. Further on of a plan which operations. The warffected persons a | nption. The center of welling two thousand five hundi-<br>plicable to those wells, do of planned entry for survey ded in subsection (b), section to that date. This limitation he real property records not be remore, the well operator in identifies the sufficient may ariance, if granted, shall it | pads may not be<br>red square feet or<br>eveloped springs,<br>ving or staking as<br>on sixteen of this<br>on may be waived<br>naintained by the<br>may be granted a<br>teasures, facilities<br>nelude terms and |
| I, Mark H. Fox, by my All  | normey-in-Fack, TH Exploration, LLC , hereby state tha   | WAIVI<br>t I have read the Instruct   | E <b>R</b><br>ions to Persons Na   | med on Page WW-6A and   | the associated  |
| provisions lis<br>WW-6A and  | attachments consisting of pages or<br>the well plat, all for proposed well<br>West Virginia  | l copies of a Notice of A<br>ne (1) through<br>I work on the tract of lan   | pplication, an App<br>, including the  | lication for a Well Work Pe   | ermit on Form   |
| County:  | Marshall   |   | AD 83 Northing:  | 4,402,272.06  |   |
| District:  | Meade  | Public Road Access:   |  | St. Joseph Road - County Route 2  | 1   |
| Quadrangle:  | Glen Easton 7.5'   |   | used farm name:  |   |   |
| Watershed:   | Fish Creek (HUC-10)  |   | , assa man name,   |   |   |
| further state  | that I have no objection to the plan   | nned work described in t  | hese materials, and  | I have no objection to a p  | ermit being   |
| issued on tho  | se materials and I therefore waive   | all well site restrictions l  | isted under West   | Virginia Code § 22-6A-12(   | a).   |
| WELL SITE  | RESTRICTIONS BEING WAI   | VED   |  | TION BY A NATURAL I   |   |
| *Please check  | k all that apply   |   |  |   |   |
| DVICTO   | NG WATER WELLS   |   | Print Name:  |   |   |
| L EVISIU   | NO WATER WELLS   |   | Date:  |   |   |
| □ DEVEL  | OPED SPRINGS   |   |  | TION BY A CORPORAT  |   |
|  |  |   |  | ploration, LLC as Attorney-in-Fact for I  | Mark H. Fox   |
| DWELI  | LINGS  |   | By: Douglas L. DeMartino   |   |   |
| AGRICI   | ULTURAL BUILDINGS  |   | Its: Attorney-in-Fact Signature: Pac Ock   |   |   |
| L AGRICO   | OLI ORAL BUILDINGS   |   | Date: 430  | 2010  |   |
| Wall Operato   | r: Tug Hill Operating, LLC   | 01-   |  | WIV   |   |
| By: David G. Del.  |  | Sign  | phone: 724-749-8388  |   |   |
| ts: Land Team L  |  | 1010  | pnone: 124-146-0300  |   |   |
|  |  |   |  |   |   |
| соммон   | NWEGITHROFSPENNSYLVANIA  | Subscribed and Svo  | rn before me this_   | 30 day of Sop   | Perha   |
| City of  | NOTARIAL SEAL<br>ean Cotter, Notary Public<br>Pittsburgh, Allegheny County<br>mission Expires Oct. 12, 2019  | My Commission Ex  | pires John   | 2/2013  | _Notary Public  |
| Oil and Gas P  | rivacy Notice:   |   |  |   | -   |
| The Office of (  | Oil and Gas processes your personal in   | nformation, such as name.   | address and telephor   | ne number, as part of our reou  | llatory duties. Your  |
| personal inform  | nation may be disclosed to other State   | agencies or third parties in  | the normal course of   | of business or as needed to con   | mply with statutory   |

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.

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Office of Oil and Gas

NOV 26 2019

WV Department of Environmental Protection Marshall County
Jan Pest, Clerk
Instrument 1459578
10/01/2019 @ 01:06:56 PM
MISCELLANEOUS
Book 40 @ Page 46
Pages Recorded 1
Recording Cost \$ 11.00

4705102279

WW-6RW (1-12)

API NO. 47-OPERATOR WELL NO. Knob Creek N-2HM Well Pad Name: Knob Creek

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

| tic animal consun-<br>acture, or a building is limitation is applied to surface owner of contal well as proving and recorded in the is located. Further on of a plan which operations. The vertical records is the surface of the surface | ndred fifty feet measured horizontally from aption. The center of well pads may not being two thousand five hundred square feet or applicable to those wells, developed springs, of planned entry for surveying or staking as ided in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the ermore, the well operator may be granted an identifies the sufficient measures, facilities variance, if granted, shall include terms and  |  |
|--|---|--|
|  | and property. The terms and conditions may  |  |
|  | umed on Page WW-6A and the associated   |  |
| , including the d as follows:  D 83 Easting: D 83 Northing: D 84 Access:  V used farm name:  | erosion and sediment control plan, if  525,217.67  4,402,272.06 St. Joseph Road - County Route 21  David Lee Franklin  d I have no objection to a permit being  |  |
| FOR EXECU  | TION BY A NATURAL PERSON  |  |
| Print Name:  |   |  |
| FOR EXECUTION BY A CORPORATION, ETC.  Company: TH Exploration, LLC as Attorney-in-Fact for David E. Fox  |   |  |
| By: Douglas L. DeMartino   |   |  |
| Its: Attomey-in-Fact Signature: Date: 913012016  |   |  |
| ature:   | 201-1   |  |
| phone: 724-749-8388  |   |  |
| i i  | poplication, an App, including the d as follows: D 83 Easting: D 83 Northing: D 83 Northing: D 84 Access: Used farm name: D 85 Northing: D 86 Northing: D 87 Northing: D 87 Northing: D 88 Northing: D 98 Northing: |  |

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 <a href="mailto:depprivacyofficer@wv.gov">depprivacyofficer@wv.gov</a>.

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NOV 26 2019

WV Department of **Environmental Protection** 

Marshall County Jan Pest, Clerk Instrument 1459579 10/01/2019 @ 01:06:57 PM MISCELLANEOUS Book 40 @ Page 47 Pages Recorded 1 Recording Cost \$ 11.00

4705102279

WW-6RW (1-12)

The well operator, Tug Hill Operating, LLC

API NO. 47-OPERATOR WELL NO. Knob Creek N-2HM Well Pad Name: Knob Creek

is applying for a permit from the State of West Virginia to conduct oil or gas well

### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

| work. Please   | be advised that well work permits are vali   | d for twenty-four  | (24) months.  |   |  |
|--|--|--|---|---|--|
| Pursuant to V<br>any existing located within<br>larger used to<br>dwellings or a<br>provided in searticle was pr<br>by written co-<br>clerk of the co-<br>variance by the<br>or practices to<br>conditions the | water well or developed spring used for he six hundred twenty-five feet of an occup or house or shelter dairy cattle or poultry agricultural buildings that existed on the dection ten of this article or a notice of interpovided, whichever occurs first, and to any possent of the surface owner transmitted to county commission for the county in which esecretary from these distance restriction to be employed during well site construction | human or domestic bied dwelling struct husbandry. This date a notice to the drill a horizon of dwelling under control to the department at the such property in the upon submission, drilling and of and protection of a | c animal consunture, or a building limitation is apply surface owner at all well as provious truction prior and recorded in a slocated. Further of a plan which perations. The affected persons a | indred fifty feet measured horizontally from aption. The center of well pads may not being two thousand five hundred square feet or oplicable to those wells, developed springs, of planned entry for surveying or staking as ided in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the ermore, the well operator may be granted an identifies the sufficient measures, facilities variance, if granted, shall include terms and and property. The terms and conditions may |  |
|  |  | WAIVE  | R   |   |  |
| provisions lis   | tomoy-in-Fact. TH Exploration, LLC, hereby state that I have ted above, and that I have received copies attachments consisting of pages one (1) the  | of a Notice of App   | lication, an App  | lication for a Well Work Permit on Form   |  |
| required, and  | the well plat, all for proposed well work o  | on the tract of land   | as follows:   | and bounded plant, if   |  |
|  | State: West Virginia UTM NAD 83 Easting: County: Marshall UTM NAD 83 Northing:   |  |   | 525,217.67  |  |
|  |  |  |   | 4,402,272.06  |  |
| District:  | Meade  | Public Roa   |   | St. Joseph Road - County Route 21   |  |
| Quadrangle:<br>Watershed:  | Glen Easton 7.5'<br>Fish Creek (HUC-10)  | Generally  | used farm name:   | David Lee Franklin  |  |
| I further state issued on thos   | that I have no objection to the planned we<br>se materials and I therefore waive all well  | ork described in the<br>site restrictions lis  | ted under West  | Virginia Code § 22-6A-12(a).  |  |
|  | RESTRICTIONS BEING WAIVED all that apply   |  | Signature:  | TION BY A NATURAL PERSON  |  |
| ☐ EXISTING WATER WELLS   |  |  | Print Name: Date:   |   |  |
| ☐ DEVELOPED SPRINGS  |  |  |   | TION BY A CORPORATION, ETC. xploration, LLC as Attorney-in-Fact for Mary A. Fox   |  |
| DWELLINGS  |  |  | By: Douglas L. De   | Martino   |  |
| ☐ AGRICULTURAL BUILDINGS   |  |  | Its: Attorney-in-Fact Signature: Date: 9 20 20 6  |   |  |
| Well Operato   | r; Tug Hill Operating, LLC   | Signa  | tures   |   |  |
| By: David G. Del   |  | Telep  | none: 724-749-8388  |   |  |
| Its: Land Team L   | ead  |  |   | And the state of the state of   |  |
| Му Со  | JREEN A STEAD - Notary Public Washington County pmmission Expires Jan 28, 2023 pmmission Number 1259926  | oscribed and sworn   | u-t Ste   | day of JEPTEMBER 2019 Notary Public   |  |

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.

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NOV 2 6 2019

WV Department of **Environmental Protection** 

Marshall County Jan Pest, Clerk Instrument 1459580 10/01/2019 @ 01:06:58 PM MISCELLANEOUS Book 40 @ Page 48 Pages Recorded 1 Recording Cost \$ 11.00

4705102279

WW-6RW (1-12)

API NO. 47-OPERATOR WELL NO. Knob Creek N-2HM Well Pad Name: Knob Creek

### STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS TOCATION DESTRICTION WAIVED

|   | erator, Tug Hill Operating, LLC is app<br>to be advised that well work permits are valid  | lying for a permit from the State for twenty-four (24) months.   | of West Virginia to conduct oil or gas wel  |
|---|---|--|---|
| Pursuant to any existing located within larger used the dwellings or provided in sarticle was publication with the extra color of the extra color | on Restrictions West Virginia Code § 22-6A-12(a), Wells m water well or developed spring used for hu n six hundred twenty-five feet of an occupie to house or shelter dairy cattle or poultry h agricultural buildings that existed on the dat ection ten of this article or a notice of intent rovided, whichever occurs first, and to any de- county commission for the county in which he secretary from these distance restrictions to be employed during well site construction e department requires to ensure the safety and ance, bonding and indemnification, as well as | man or domestic animal consum<br>d dwelling structure, or a buildin<br>usbandry. This limitation is ap-<br>te a notice to the surface owner of<br>to drill a horizontal well as provious<br>welling under construction prior<br>the department and recorded in the<br>such property is located. Furthe<br>upon submission of a plan which<br>and, drilling and operations. The vel<br>d protection of affected persons a | uption. The center of well pads may not buy two thousand five hundred square feet of plicable to those wells, developed springs of planned entry for surveying or staking a ded in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the remore, the well operator may be granted a identifies the sufficient measures, facilities trainance, if granted, shall include terms and |
| merade mour   |   | WAIVER   |   |
|   |   |  |   |
| WW-6A and<br>required, and<br>State:<br>County:<br>District:<br>Quadrangle:<br>Watershed:   | attachments consisting of pages one (1) through the well plat, all for proposed well work on the West Virginia  Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC-10)  | the tract of land as follows:  UTM NAD 83 Easting:  UTM NAD 83 Northing:  Public Road Access:  Generally used farm name:   | 525,217.67<br>4,402,272.06<br>St. Joseph Road - County Route 21<br>David Lee Franklin   |
| WW-6A and required, and State: County: District: Quadrangle: Watershed: I further state issued on tho   | attachments consisting of pages one (1) through the well plat, all for proposed well work on the West Virginia  Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC-10)  that I have no objection to the planned work see materials and I therefore waive all well sit   | agh, including the of<br>the tract of land as follows:<br>UTM NAD 83 Easting:<br>UTM NAD 83 Northing:<br>Public Road Access:<br>Generally used farm name:  | ication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67  4,402,272.06 St. Joseph Road - County Route 21  David Lee Franklin  I I have no objection to a permit being Virginia Code § 22-6A-12(a).  |
| WW-6A and required, and State: County: District: Quadrangle: Watershed: I further state issued on tho WELL SITE *Please check   | attachments consisting of pages one (1) through the well plat, all for proposed well work on a West Virginia Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC-10)  that I have no objection to the planned work as materials and I therefore waive all well site E RESTRICTIONS BEING WAIVED all that apply   | agh, including the of the tract of land as follows:  UTM NAD 83 Easting:  UTM NAD 83 Northing:  Public Road Access:  Generally used farm name:  described in these materials, and e restrictions listed under West V  FOR EXECUTATIONS   | ication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67  4,402,272.06  St. Joseph Road - County Route 21  David Lee Franklin   |
| WW-6A and required, and State: County: District: Quadrangle: Watershed: I further state issued on tho WELL SITE *Please check   | attachments consisting of pages one (1) through the well plat, all for proposed well work on a West Virginia Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC-10)  that I have no objection to the planned work asses materials and I therefore waive all well site E RESTRICTIONS BEING WAIVED   | agh, including the of the tract of land as follows:  UTM NAD 83 Easting:  UTM NAD 83 Northing:  Public Road Access:  Generally used farm name:  described in these materials, and e restrictions listed under West V  FOR EXECUTATION Signature:  Print Name:  Date:   | ication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67  4,402,272.06 St. Joseph Road - County Route 21  David Lee Franklin  I have no objection to a permit being Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  |
| WW-6A and required, and State: County: District: Quadrangle: Watershed: I further state issued on tho WELL SITE *Please check  EXISTI   | attachments consisting of pages one (1) through the well plat, all for proposed well work on a West Virginia Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC-10)  that I have no objection to the planned work as materials and I therefore waive all well site E RESTRICTIONS BEING WAIVED all that apply   | the tract of land as follows:  UTM NAD 83 Easting:  UTM NAD 83 Northing:  Public Road Access:  Generally used farm name:  described in these materials, and e restrictions listed under West V  FOR EXECUTATION NAME:  Print Name:  Date:  FOR EXECUTATION   | ication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67  4,402,272.06  St. Joseph Road - County Route 21  David Lee Franklin  I have no objection to a permit being Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC.  |
| WW-6A and required, and State: County: District: Quadrangle: Watershed: I further state issued on tho WELL SITE *Please check EXISTE DEVEL  | attachments consisting of pages one (1) through the well plat, all for proposed well work on a West Virginia Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC-10)  that I have no objection to the planned work as materials and I therefore waive all well site and that apply  K RESTRICTIONS BEING WAIVED all that apply  NG WATER WELLS  COPED SPRINGS  | the tract of land as follows:  UTM NAD 83 Easting:  UTM NAD 83 Northing:  Public Road Access:  Generally used farm name:  described in these materials, and e restrictions listed under West V  FOR EXECUTATION NAME:  Print Name:  Date:  FOR EXECUTATION   | ication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67  4,402,272.06  St. Joseph Road - County Route 21  David Lee Franklin  I have no objection to a permit being Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox  |
| WW-6A and required, and State: County: District: Quadrangle: Watershed: I further state issued on tho WELL SITE *Please check EXISTI DEVEL DWELL DWELL DWELL  | attachments consisting of pages one (1) through the well plat, all for proposed well work on a West Virginia Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC-10)  that I have no objection to the planned work as materials and I therefore waive all well site and that apply  K RESTRICTIONS BEING WAIVED all that apply  NG WATER WELLS  COPED SPRINGS  | igh, including the of the tract of land as follows:  UTM NAD 83 Easting:  UTM NAD 83 Northing:  Public Road Access:  Generally used farm name:  described in these materials, and e restrictions listed under West V  FOR EXECUT Signature:  Print Name:  Date:  FOR EXECUT Company: THEX, By: Douglas L. Dek Its: Attorney-in-Fact Signature:   | ication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67 4,402,272.06 St. Joseph Road - County Route 21 David Lee Franklin  I have no objection to a permit being Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox Martino   |
| WW-6A and required, and State: County: District: Quadrangle: Watershed: I further state issued on tho WELL SITE *Please check  EXISTI DEVEL DWELL AGRICA  | attachments consisting of pages one (1) through the well plat, all for proposed well work on a West Virginia Marshall  Meade  Glen Easton 7.5'  Fish Creek (HUC-10)  that I have no objection to the planned work as materials and I therefore waive all well site and that apply  K RESTRICTIONS BEING WAIVED all that apply  NG WATER WELLS  LOPED SPRINGS  LINGS   | igh, including the of the tract of land as follows:  UTM NAD 83 Easting:  UTM NAD 83 Northing:  Public Road Access:  Generally used farm name:  described in these materials, and e restrictions listed under West V  FOR EXECUT Signature:  Print Name:  Date:  FOR EXECUT Company: THEX, By: Douglas L. Dek Its: Attorney-in-Fact Signature:   | ication for a Well Work Permit on Form erosion and sediment control plan, if  525,217.67 4,402,272.06 St. Joseph Road - County Route 21 David Lee Franklin  I have no objection to a permit being Virginia Code § 22-6A-12(a).  FION BY A NATURAL PERSON  FION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox Martino   |

Commonwealth of Pennsylvania - Notary Seal MAURETNO THE ROY IS TO A Public Washington County
My Commission Expires Jan 28, 2023 Commission Number 1259926

day of SEPTEMBER 2019 Subscribed and sworn before me this

Notary Public

My Commission Expires

Oil and Gas Privacy Notice:

By: David G. DeLallo Its: Land Team Lead

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WV Department of **Environmental Protection** 

Marshall County Jan Pest, Clerk Instrument 1459581 10/01/2019 @ 01:06:59 PM MISCELLANEOUS Book 40 @ Page 49 Pages Recorded 1 Recording Cost \$ 11.00



#### WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

## **Division of Highways**

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

October 1, 2019

Byrd E. White, III Secretary of Transportation/ Commissioner of Highways

Jimmy Wriston, P. E.
Deputy Secretary/
Deputy Commissioner

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

Subject: DOH Permit for the Knob Creek Pad, Marshall County

| Knob Creek Unit N-1HM<br>Knob Creek Unit S-6HM | Knob Creek Unit N-2HM /<br>Knob Creek Unit S-7HM | Knob Creek Unit N-3HM                           |
|--|--|---|
| Knob Creek Unit S-9HM                          | ** • ~   | Knob Creek Unit S-8HM<br>Knob Creek Unit N-11HU |
| Knob Creek Unit S-14HU                         | Knob Creek Unit S-15HU                           | Knob Creek Unit S-16HU                          |

Dear Mr. Martin,

This well site will be accessed from a DOH permit #06-2018-0224 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 SLS.

This operator is in compliance with §22-6A-20 of the WV Code. Operator has signed a DISTRICT WIDE 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 October 1, 2018.

Very Truly Yours,

Gary K. Clayton, P.E.

Regional Maintenance Engineer Central Office O&G Coordinator

Cc: Amy Miller

Tug Hill Operating, LLC

CH, OM, D-6

File

Office of old and Co



#### PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION

Well No. Knob Creek N-2HM

PRODUCT NAME: CHEMICAL DESCRIPTION: PRODUCT USE: HAZARDOUS COMPONENT:

GBW-20C Hemicellulase Breaker Breaker - Water None

ALPHA 1427 Biocide Glutaraldehyde – CAS#000111-30-8

Quatemary ammonium chloride

CAS# 007173-51-5

CAS# 14808-60-7

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 Proppant Crystalline silica (quartz)

sizes)

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

Office of Oil and Gas

OCT - 2 2019

WV Department of Environmental Protection

