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west virginia department of environmental protection

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

Austin Caperton, Cabinet Secretary  
[www.dep.wv.gov](http://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

Re: Permit approval for KNOB CREEK S-10HM  
47-051-02286-00-00

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 S-10HM  
Farm Name: DAVID LEE FRANKLIN  
U.S. WELL NUMBER: 47-051-02286-00-00  
Horizontal 6A New Drill  
Date Issued: 12/3/2019

Promoting a healthy environment.

# PERMIT CONDITIONS

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.

## CONDITIONS

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1. 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 Number: \_\_\_\_\_  
4705102286

## 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](mailto:DEPOOGNotify@wv.gov).

WW-6B  
(04/15)

API NO. 47-051 -  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

1) Well Operator: Tug Hill Operating, LLC      494510851      Marshall      Meade      Powhatan Point 7  
Operator ID      County      District      Quadrangle

2) Operator's Well Number: Knob Creek S-10HM      Well Pad Name: Knob Creek

3) Farm Name/Surface Owner: David Lee Franklin      Public Road Access: St. Joseph Road - CR 21

4) Elevation, current ground: 734.67'      Elevation, proposed post-construction: 734.67'

5) Well Type (a) Gas  Oil  Underground Storage   
Other \_\_\_\_\_  
(b) If Gas Shallow  Deep   
Horizontal

6) Existing Pad: Yes or No No

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):  
Marcellus is the target formation at a depth of 6231' - 6282', thickness of 51' and an anticipated approximate pressure of 3800 psi.

8) Proposed Total Vertical Depth: 6382'

9) Formation at Total Vertical Depth: Onondaga

10) Proposed Total Measured Depth: 8,334'

11) Proposed Horizontal Leg Length: 1,389.80'

12) Approximate Fresh Water Strata Depths: 40'; 380'

13) Method to Determine Fresh Water Depths: Use shallow offset wells to determine deepest freshwater, or determine using pre-drill tests, testing while drilling or petrophysical evaluation of resistivity.

14) Approximate Saltwater Depths: 1,740'

15) Approximate Coal Seam Depths: Sewickley Coal - 292' and Pittsburgh Coal - 374'

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

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

(a) If Yes, provide Mine Info: Name: \_\_\_\_\_  
Depth: \_\_\_\_\_  
Seam: \_\_\_\_\_  
Owner: \_\_\_\_\_

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WW-6B  
(04/15)

API NO. 47- 051 -  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

18)

**CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	30"	NEW	BW	BW	120'	120'	259ft <sup>3</sup> (CTS)
Fresh Water	13 3/8"	NEW	J55	54.5#	480'	480'	683ft <sup>3</sup> (CTS)
Coal	13 3/8"	NEW	J55	54.5#	480'	480'	683ft <sup>3</sup> (CTS)
Intermediate	9 5/8"	NEW	J55	36#	2,302'	2,302'	745ft <sup>3</sup> (CTS)
Production	5 1/2"	NEW	P110	20#	8,334'	8,334'	2,151ft <sup>3</sup> (CTS)
Tubing	2 3/8"	NEW	N80	4.7#	6,499'		
Liners							

*Ju*  
9/27/19

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	30"	36"	1.0	2,333	1,866	CLASS A	1.2
Fresh Water	13 3/8"	17.5"	.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							

**PACKERS**

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

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WW-6B  
(10/14)

API NO. 47- 051 - \_\_\_\_\_  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

*ky 9/27/19*

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 3,475,000 lb. proppant and 53,726 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

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.

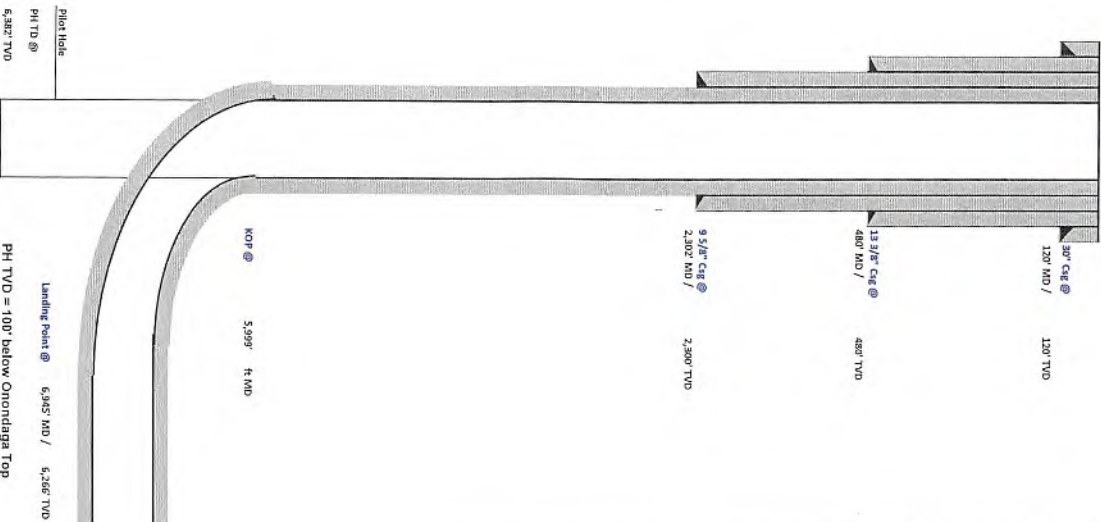
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\*Note: Attach additional sheets as needed.



WELL NAME:	Knob Creek 5-10HM	COUNTY:	Marshall
STATE:	WV	OLBLW:	737
DISTRICT:	Mead		
OP Elev:	737'		
TO:	8,334'		
TH Latitude:	39.77015977		
TH Longitude:	-80.70539698		
Blk Latitude:	39.767152		
Blk Longitude:	-80.698519		



FORMATION TOPS	Depth TVD
Formation	380
Deepart Fresh Water	292
Senwicksy Coal	374
Preshburg Coal	1726
Big Lime	2027
Weir	2211
Berea	2474
Gordon	3588
Rhinestreet	6100
Genesee/Quakert	6130
Tully	6153
Hamilton	6231
Marcellus	6266
Landing Depth	6282
Onondaga	6382
Pilot Hole Depth	6382

CASING SUMMARY			
Type	Hole Size (in)	Csg Size (in)	Depth (TVD)
Conductor	36	30	120'
Surface	17.5	13.9/8	480'
Intermediate 1	12.1/4	9.5/8	2,302'
Production	8.7/8 x 8.9/4	5.1/2	6,290'

CEMENT SUMMARY			DRILLING DETAILS	
Sacks	Class	Density	Fluid Type	Centralizer Notes
308	A	15.6	Air	None
661	A	15.6	Air	3 Centralizers at equal distance
784	A	15	Air	1 Centralizer every other ft
1,587	A	14.5	Air / SCBM	1 every other joint in lateral; 1 per joint in curve; 1 every other ft to site

*Handwritten signature/initials*

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Lateral TD @ 8,334' R.M.D  
6,290' 4 TVD



## Tug Hill Operating, LLC Casing and Cement Program

### Knob Creek S-10HM

#### Casing

	String	Grade	Bit Size	Depth (Measured)	Cement Fill Up
Conductor	30"	BW	36"	120'	CTS
Surface	13 3/8"	J55	17 1/2"	480'	CTS
Intermediate	9 5/8"	J55	12 1/4"	2,302'	CTS
Production	5 1/2"	CYHP110	8 7/8 x 8 3/4"	8,334'	CTS

#### 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
Production:	50:50 Poz: Premium NE-1 + .1% bwoc ASA-301 + 60lb/sk ASCA-1 + .35% bwoc BA-10A + .25% bwoc MPA-170, 44 lb sack + .5% bwoc R-3 + .75 gals/100sk FP-13L – 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](mailto: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
- 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 planned well and using that for permits

Permit well - Knob Creek S-10HM

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

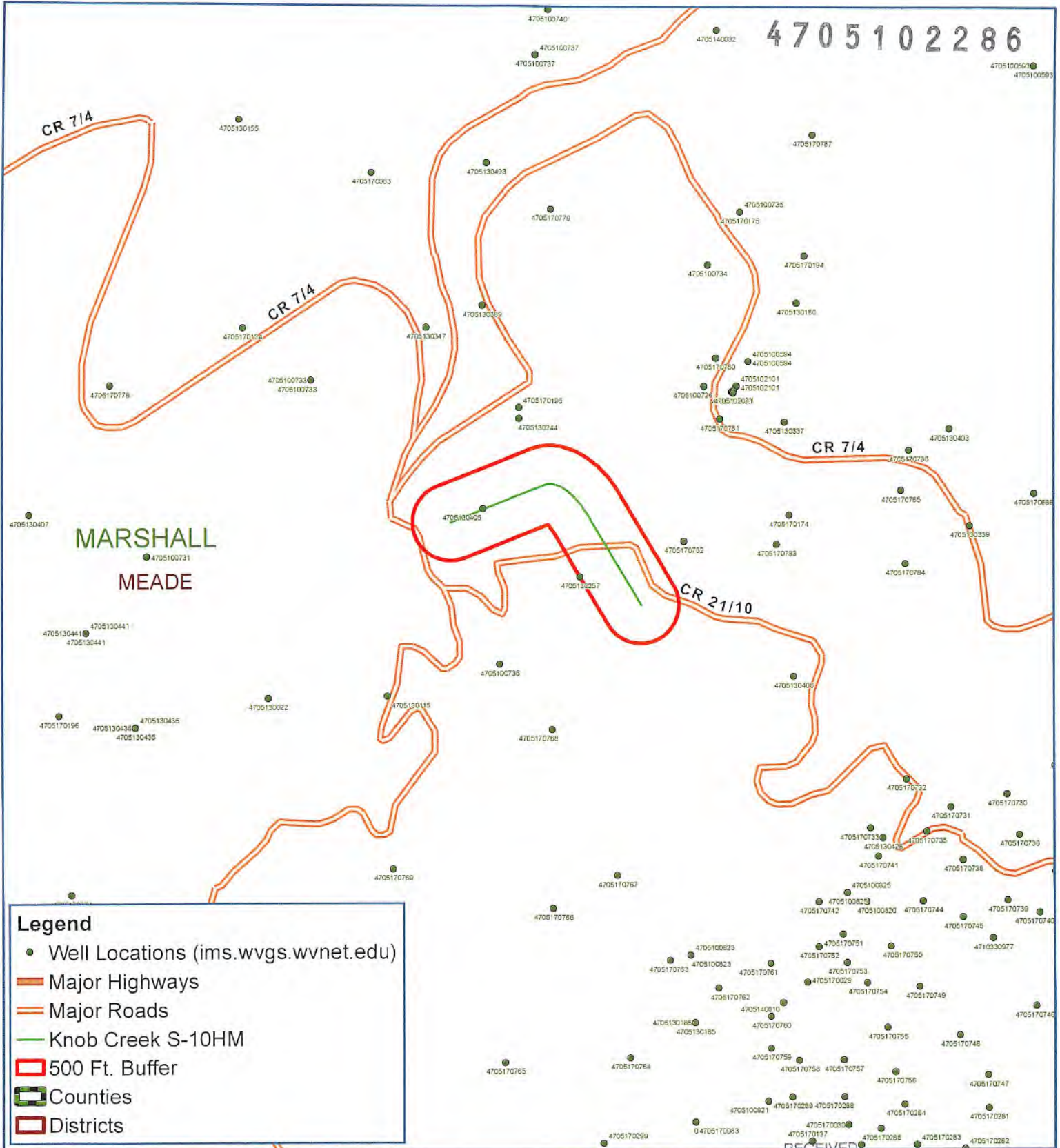
API Number	Operator Name	Total Depth	Perforated Fms	Producing zones not perforated	Is this well "known or reasonably expected to penetrate a depth that could be within the range of Fracture propagation"? 1000' is max limit I would assign to wells that might be within in range of fracture propagation	Comments
4705102267	Tug Hill Operating	n/a	n/a	n/a	Yes, existing Marcellus permit Proper casing and cement should prevent migration of fluids from new wellbore to existing wellbore	Currently a permit
4705102032	Tug Hill Operating	n/a	n/a	n/a	Yes, existing Marcellus permit Proper casing and cement should prevent migration of fluids from new wellbore to existing wellbore	Currently a permit
4705102268	Tug Hill Operating	n/a	n/a	n/a	No, existing Point Pleasant permit Proper casing and cement should prevent migration of fluids from new wellbore to existing wellbore	Currently a permit
4705102269	Tug Hill Operating	n/a	n/a	n/a	No, existing Point Pleasant permit Proper casing and cement should prevent migration of fluids from new wellbore to existing wellbore	Currently a permit
4705130405	Wilhelm & Jackson	Unknown	Unknown	Unknown	Unknown but unlikely. The well likely represents an old shallow well that is too shallow to be effected by fracturing in the planned Marcellus well.	Well plugged 12/4/1959
4705130257	Hope Natural Gas Company	2900' TVD	Gordon Sd	Unknown	No, the well is not deep enough to be within the expected fracture propagation from a Marcellus stimulation. The well is plugged	Well plugged 1/17/1947

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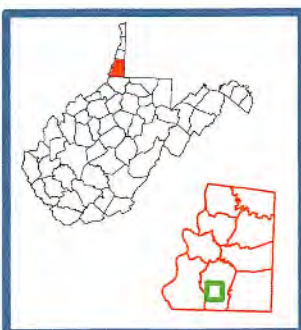
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**Legend**

- Well Locations (ims.wvgs.wvnet.edu)
- Major Highways
- Major Roads
- Knob Creek S-10HM
- ▭ 500 Ft. Buffer
- ▭ Counties
- ▭ Districts



# Knob Creek S - 10HM Meade District Marshall County, WV



Notes:  
All locations are approximate and are for visualization purposes only.

Map Created: September 25, 2019  
Map Current As Of: September 25, 2019

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4705102286

WW-9  
(4/16)

API Number 47 - 051 -  
Operator's Well No. Knob Creek S-10HM

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

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FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

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Operator Name Tug Hill Operating, LLC OP Code 494510851  
Watershed (HUC 10) Fish Creek Quadrangle Glen Easton 7.5'

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

Will a pit be used? Yes  No

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

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

Proposed Disposal Method For Treated Pit Wastes:

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

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

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

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

Additives to be used in drilling medium? Barite for weight

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

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

-Landfill or offsite name/permit number? Wetzel County Sanitary Landfill (SWF-1021 / WV0109185) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP EC#1386425)

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

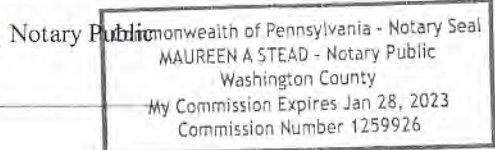
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations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

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

Company Official Signature *Jim Pancake*  
Company Official (Typed Name) Jim Pancake  
Company Official Title VP Geosciences

Subscribed and sworn before me this 26 day of SEPTEMBER, 20 19

*Maureen A Stead*



My commission expires 1/28/23

Tug Hill Operating, LLC

Proposed Revegetation Treatment: Acres Disturbed 12.93 Prevegetation pH 6.0

Lime 3 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch 2.5 Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Annual Ryegrass	40
Spring Oats	96

Seed Type	lbs/acre
Orchard Grass	12
Ladino	3
White Clover	2

Attach:

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

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: [Signature]

Comments:

Title: WVDEP Oil and Gas Inspector

Date: 9/27/19

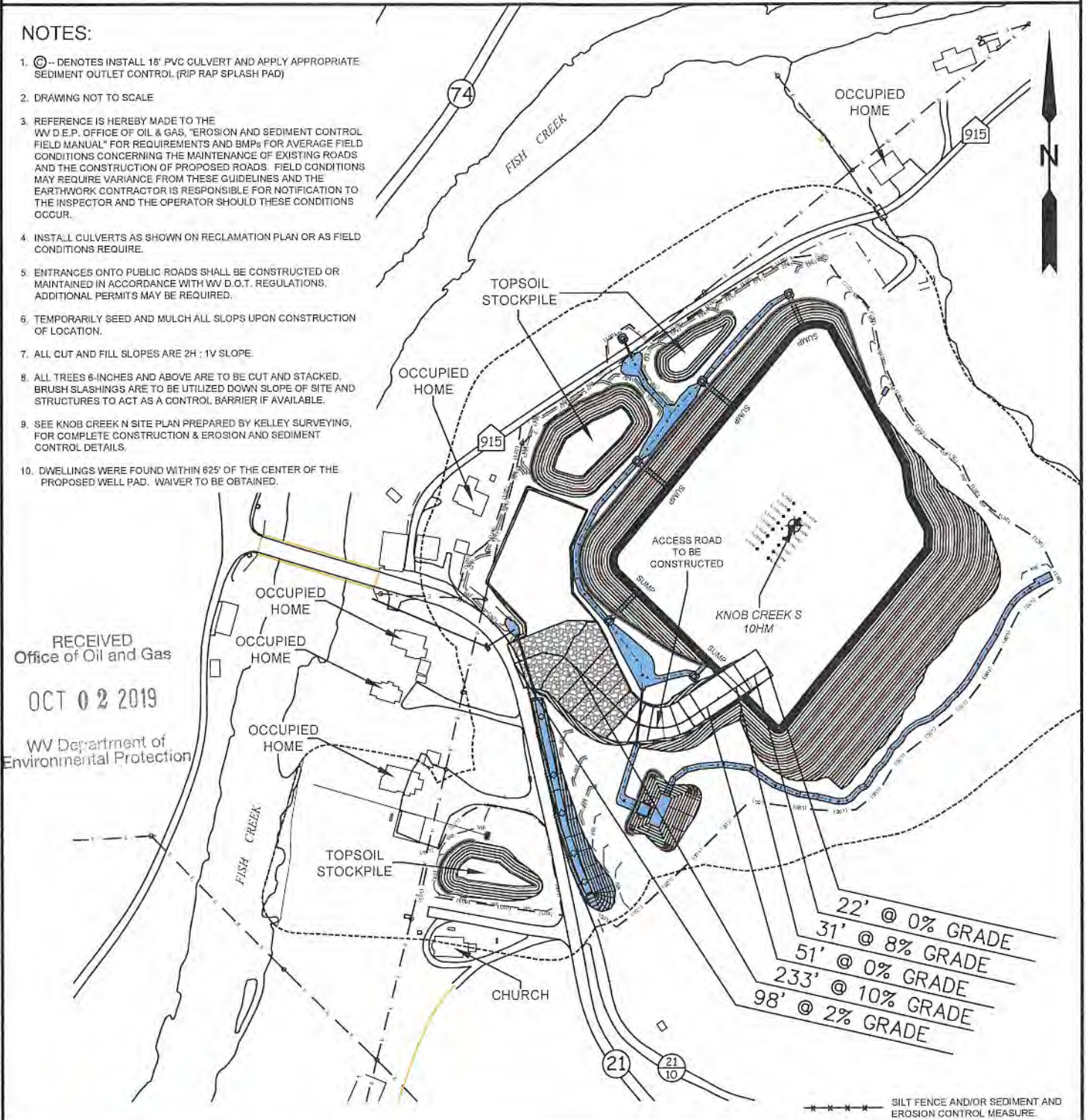
Field Reviewed? (X) Yes ( ) No

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# PROPOSED KNOB CREEK S - 10HM 4705102286

**NOTES:**

1. Ⓞ -- DENOTES INSTALL 18" PVC CULVERT AND APPLY APPROPRIATE SEDIMENT OUTLET CONTROL (RIP RAP SPLASH PAD)
2. DRAWING NOT TO SCALE
3. REFERENCE IS HEREBY MADE TO THE WV D.E.P. OFFICE OF OIL & GAS, "EROSION AND SEDIMENT CONTROL FIELD MANUAL" FOR REQUIREMENTS AND BMPs FOR AVERAGE FIELD CONDITIONS CONCERNING THE MAINTENANCE OF EXISTING ROADS AND THE CONSTRUCTION OF PROPOSED ROADS. FIELD CONDITIONS MAY REQUIRE VARIANCE FROM THESE GUIDELINES AND THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO THE INSPECTOR AND THE OPERATOR SHOULD THESE CONDITIONS OCCUR.
4. INSTALL CULVERTS AS SHOWN ON RECLAMATION PLAN OR AS FIELD CONDITIONS REQUIRE.
5. ENTRANCES ONTO PUBLIC ROADS SHALL BE CONSTRUCTED OR MAINTAINED IN ACCORDANCE WITH WV D.O.T. REGULATIONS. ADDITIONAL PERMITS MAY BE REQUIRED.
6. TEMPORARILY SEED AND MULCH ALL SLOPS UPON CONSTRUCTION OF LOCATION.
7. ALL CUT AND FILL SLOPES ARE 2H : 1V SLOPE.
8. ALL TREES 6-INCHES AND ABOVE ARE TO BE CUT AND STACKED. BRUSH SLASINGS ARE TO BE UTILIZED DOWN SLOPE OF SITE AND STRUCTURES TO ACT AS A CONTROL BARRIER IF AVAILABLE.
9. SEE KNOB CREEK N SITE PLAN PREPARED BY KELLEY SURVEYING, FOR COMPLETE CONSTRUCTION & EROSION AND SEDIMENT CONTROL DETAILS.
10. DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF THE PROPOSED WELL PAD. WAIVER TO BE OBTAINED.



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22' @ 0% GRADE  
31' @ 8% GRADE  
51' @ 0% GRADE  
233' @ 10% GRADE  
98' @ 2% GRADE

**SLS**  
Land & Energy Development  
*Solutions from the ground up.*  
P.O. Box 150 • 112 Vanhorn Drive • Glenville, WV 26031 • (304) 462-5634  
www.slsurveys.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR: TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317	
COUNTY	DISTRICT		
MARSHALL	MEADE		
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8789	07/27/2018	NONE

**TUG HILL**  
OPERATING



**Well Site Safety Plan**  
Tug Hill Operating, LLC

*9/27/19*

Well Name: Knob Creek S-10HM

Pad Location: Knob Creek Pad

Marshall County, West Virginia

UTM (meters), NAD83, Zone 17:

Northing: 4,402,289.21

Easting: 525,231.35

September 2019

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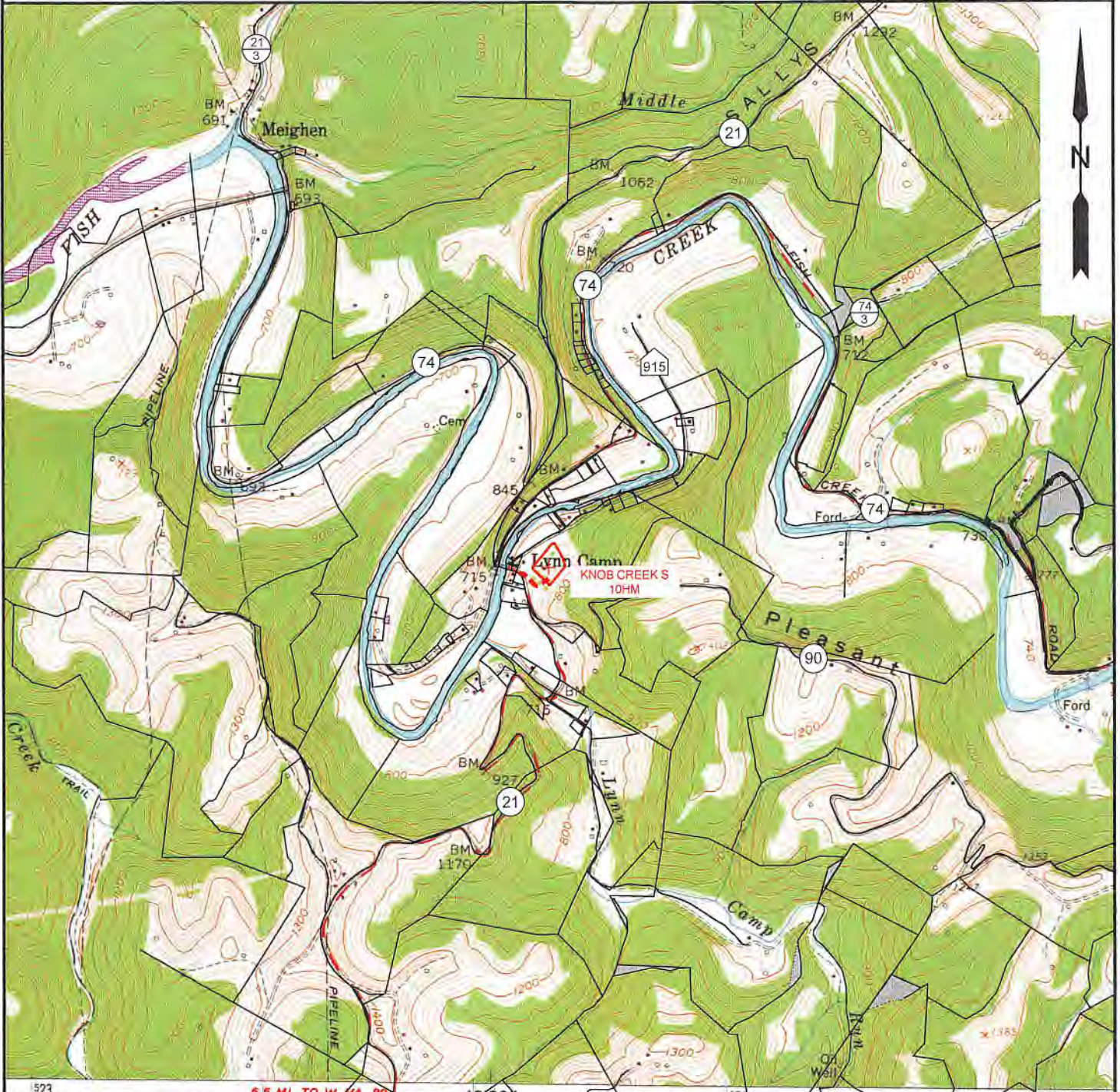
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OCT 02 2019

WW-9

**PROPOSED** WV Department of Environmental Protection **SUPPLEMENT PG. 2**  
**Knob Creek S - 10HM** **4705102286**



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 S WELL PAD LOCATION.

**SLS**  
**Land & Energy Development**  
*Solutions from the ground up.*  
P.O. Box 150 • 112 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5834  
www.slsurveys.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
DRAWN BY		DATE	SCALE
K.G.M.		07/27/2018	1" = 2000'

**TUG HILL**  
**OPERATING**

**KNOB CREEK S LEASE  
WELL 10HM  
TUG HILL OPERATING**

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

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

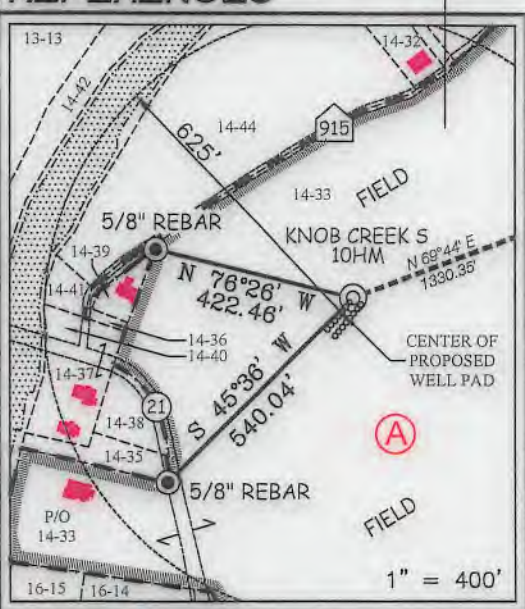
NAD'83 S.P.C.(FT)	N. 464,904.41	E. 1,629,692.01
NAD'83 GEO.	LAT-(N) 39.770160	LONG-(W) 80.705397
NAD'83 UTM (M)	N. 4,402,289.21	E. 525,231.36
<b>LANDING POINT</b>		
NAD'83 S.P.C.(FT)	N. 464,981.4	E. 1,631,481.7
NAD'83 GEO.	LAT-(N) 39.770437	LONG-(W) 80.699034
NAD'83 UTM (M)	N. 4,402,321.8	E. 525,776.2
<b>BOTTOM HOLE</b>		
NAD'83 S.P.C.(FT)	N. 463,775.6	E. 1,632,172.7
NAD'83 GEO.	LAT-(N) 39.767152	LONG-(W) 80.696519
NAD'83 UTM (M)	N. 4,401,957.9	E. 525,992.8

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

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-13-13	MARGARET K. FOX - LIFE	15.513
9-14-28	CHARLES R. SCHELLHASE, ET UX	3.029
9-14-29	ANDREW FASOULETOS, ET UX	0.209
9-14-29.1	ANDREW FASOULETOS, ET UX	1.171
9-14-30	WILLIAM C. GROFT, ET UX	0.35
9-14-31	WILFORD P. NELSON, JR., ET UX	0.954
9-14-32	TWILA C. COFFIELD	0.583
9-14-32.1	TWILA C. COFFIELD	0.184
9-14-35	PAUL G. FOX	0.338
9-14-36	MARGARET FOX - LIFE	1600 SQ. FT.
9-14-37	MARGARET FOX - LIFE	LOT (ASSD)
9-14-38	MARGARET FOX - LIFE	0.631
9-14-39	MARGARET FOX - LIFE	8675 SQ. FT.
9-14-40	MARGARET FOX - LIFE	19,560 SQ. FT.
9-14-41	MARGARET FOX - LIFE	9165 SQ. FT.
9-14-42	JOHN C. LAGOS, ET UX	1.87
9-14-44	DAVID LEE FRANKLIN	2.913
9-14-54	RICHARD L. HARVETH, ET UX	1.649
9-16-14	LYNN CAMP METHODIST CHURCH	0.762
9-16-13.1	ERIC J. YOUNG	1.98

8,930' B.H.

**REFERENCES**



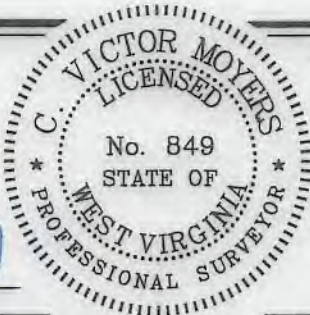
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www.sls-wv.com

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

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

P.S. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE JULY 27, 20 18  
REVISED SEPTEMBER 30, 20 19  
OPERATORS WELL NO. KNOB CREEK S-10HM  
API WELL NO. 47 - 051 - 02286  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8789P10HMR.dwg  
KNOB CREEK S-10HM REV4  
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: GROUND = 726.90' PROPOSED = 734.67' WATERSHED FISH CREEK (HUC 10)  
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'  
SURFACE OWNER DAVID LEE FRANKLIN ACREAGE 65.824±  
ROYALTY OWNER DAVID LEE FRANKLIN, ET AL - SEE WW-6A1 ACREAGE 65.824±  
PROPOSED WORK: LEASE NO. SEE WW-6A1  
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION MARCELLUS  
ESTIMATED DEPTH TVD: 6,382' / TMD: 8,334'

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

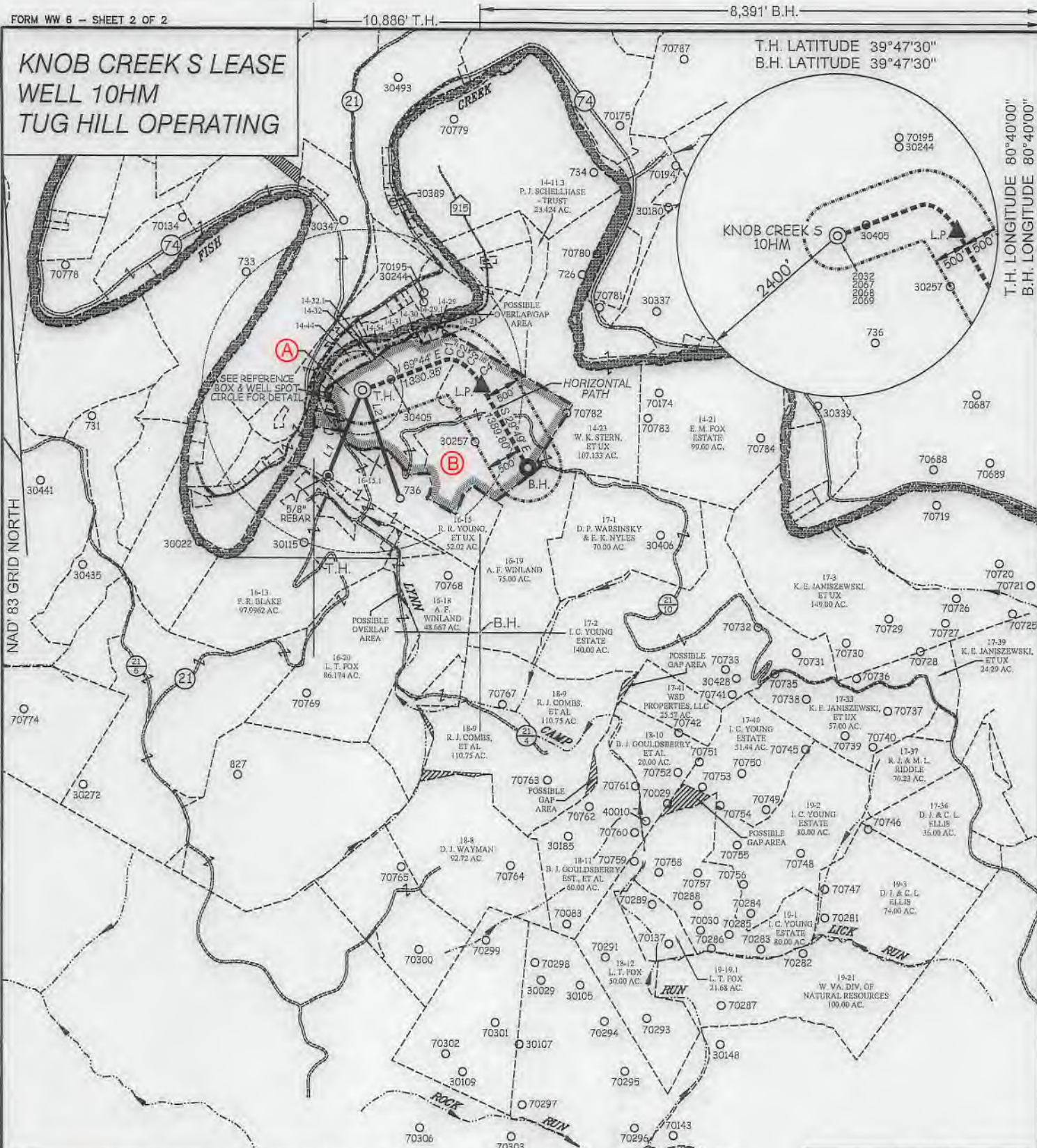
COUNTY NAME  
PERMIT

**KNOB CREEK S LEASE  
WELL 10HM  
TUG HILL OPERATING**

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

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

NAD'83 GRID NORTH



TAG	SURFACE OWNER	PARCEL	ACRES
A	DAVID LEE FRANKLIN	9-14-33	65.824
B	JOHN F. CUNNINGHAM, ET UX	9-4-22	75.22

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S 22°06' W	1361.60'
L2	S 19°37' E	1691.35'

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CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	100.34'	197.30'	N 85°57' E	99.26'
C2	160.43'	429.58'	S 67°32' E	159.50'
C3	119.23'	730.26'	S 52°30' E	119.10'
C4	327.44'	1108.90'	S 37°59' E	326.26'

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

NAD'83 S.P.C.(FT)	N. 464,904.41	E. 1,629,692.01
NAD'83 GEO.	LAT-(N) 39.770160	LONG-(W) 80.705397
NAD'83 UTM (M)	N. 4,402,289.21	E. 525,231.36

**LANDING POINT**

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**BOTTOM HOLE**

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

P.S. 849 *C. Victor Moyers*

SCALE 1" = 2000' FILE NO. 8789P10HMR.dwg  
KNOB CREEK S-10HM REV4

DATE JULY 27, 2018  
REVISED SEPTEMBER 30, 2019

OPERATORS WELL NO. KNOB CREEK S-10HM

API WELL NO. STATE COUNTY PERMIT

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

**LEGEND**

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE WW-6A1)

COUNTY NAME PERMIT

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

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

4705102286

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

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

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

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
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\*See attached pages

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

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

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

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

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

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Lease ID	Parcel	Tags	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed book/Page	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	Assignment	
10*47051.219.1	9-14-33	A	DAVID LEE FRANKLIN	TH EXPLORATION LLC	1/8+	874 312	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10*16479	9-14-22	B	JOHN F CUNNINGHAM AND BERNICE K CUNNINGHAM	FOSSIL CREEK OHIO, LLC	1/8+	826 88	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	32/105 Fossil Creek Ohio LLC to Gulfport Energy Corp.	34/398 Fossil Creek Ohio LLC to Gulfport Energy Corp.	36/535 Gulfport Energy Corp & Fossil Creek Ohio, LLC to TH Exploration LLC	N/A

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West Virginia Department of Environmental Protection



4705102286

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 S-10HM

Subject: CR 21 Road Crossing Letter

Dear Laura:

Tug Hill Operating, LLC (THO) hereby submits this letter as confirmation that THO has obtained the right to drill, extract and produce the minerals under Marshall County Route 21 in the area reflected on the Knob Creek S-10HM 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-hilop.com](mailto:amiller@tug-hilop.com).

Sincerely,

Amy Miller  
Permit Specialist – Appalachia Region  
Cell 304-376-0111  
Email: [amiller@tug-hilop.com](mailto:amiller@tug-hilop.com)

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WV Department of  
Environmental Protection

4705102286

OCT 08 2019

WW-6AC  
(1/12)

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

Date of Notice Certification: 10/01/2019

API No. 47- 051 -  
Operator's Well No. Knob Creek S-10HM  
Well Pad Name: Knob Creek

**Notice has been given:**

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

State:	West Virginia	UTM NAD 83	Easting:	525,231.35
County:	Marshall		Northing:	4,402,289.21
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)			

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

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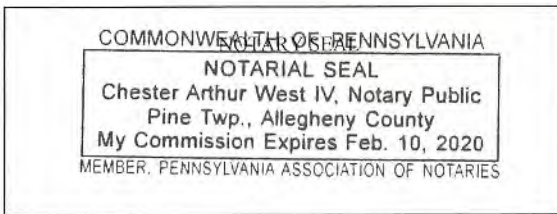
**Required Attachments:**

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

**Certification of Notice is hereby given:**

THEREFORE, I Amy L. Miller, 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:	<u>Tug Hill Operating, LLC</u>	Address:	<u>380 Southpointe Boulevard, Plaza II, Suite 200</u>
By:	<u>Amy L. Miller <i>Amy Miller</i></u>		<u>Canonsburg, PA 15317</u>
Its:	<u>Permitting Specialist - Appalachia</u>	Facsimile:	<u>724-749-8388</u>
Telephone:	<u>724-749-8388</u>	Email:	<u>amiller@tug-hillop.com</u>



Subscribed and sworn before me this 15<sup>th</sup> day of October 2019  
*[Signature]* Notary Public  
 My Commission Expires 2-10-2020

**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](mailto:depprivacyofficer@wv.gov).

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WV Department of  
Environmental Protection



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

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OCT 02 2019  
WV Department of  
Environmental Protection

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

**Date of Notice:** 9/30/2019 **Date Permit Application Filed:** 10/1/2019

**Notice of:**

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

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

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

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

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

SURFACE OWNER(s)  
Name: David Lee Franklin  
Address: 131 Saint Joseph Road  
Glen Easton, WV 26039

COAL OWNER OR LESSEE  
Name: CNX Land Resources, Inc.  
Address: 1000 Consol Energy Drive  
Canonsburg, PA 15318

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

COAL OPERATOR  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Road and/or Other Disturbance)  
Name: David Lee Franklin  
Address: 131 Saint Joseph Road  
Glen Easton, WV 26039

SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)  
Name: \*See attached list  
Address: \_\_\_\_\_

Name: \_\_\_\_\_  
Address: \_\_\_\_\_

SURFACE OWNER(s) (Impoundments or Pits)  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

OPERATOR OF ANY NATURAL GAS STORAGE FIELD  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_

\*Please attach additional forms if necessary

OCT 02 2019

WV Department of  
Environmental ProtectionAPI NO. 47-4705102286  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob CreekWW-6A  
(8-13)**Notice is hereby given:**

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

**This Notice Shall Include:**

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

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

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

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

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

**Well Location Restrictions**

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

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

#### **Water Well Testing:**

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

#### **Water Testing Laboratories:**

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

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

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

#### **Written Comment:**

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

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

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

**Time Limits and Methods for Filing Comments.**

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

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

**Comment Requirements**

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

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

**Permit Denial or Condition**

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

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

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

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

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WW-6A  
(8-13)

API NO. 47- \_\_\_\_\_ - \_\_\_\_\_  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

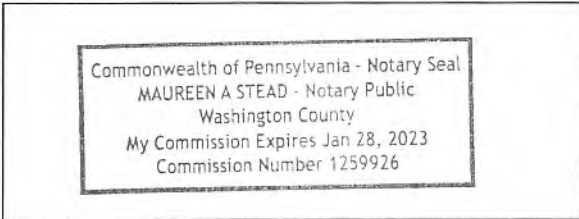
**Notice is hereby given by:**

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

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

**Oil and Gas Privacy Notice:**

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



Subscribed and sworn before me this 30 day of SEPT., 2019.  
Maureen A Stead Notary Public  
My Commission Expires 1/28/23

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## Exhibit WW-6A

## Supplement Pg. 1A

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

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

Well: KNOB CREEK S – 10HM  
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.

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

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

**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, WV 26039

**Tax Address:**

Rd. 1 Box 190  
Proctor, WV 26055-9703

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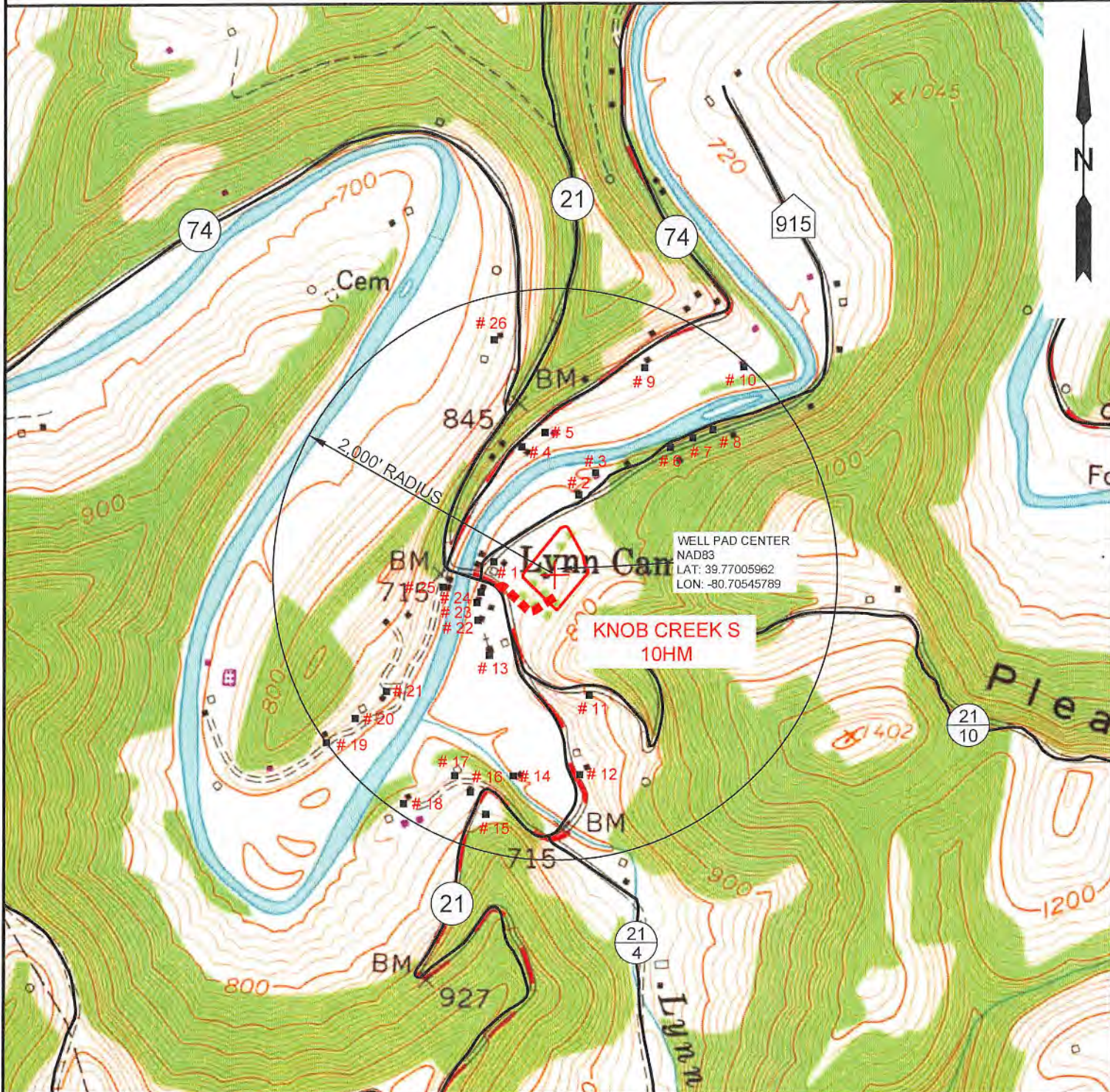
SUPPLEMENT PG. 1B

WW-6A

**PROPOSED**  
**KNOB CREEK S - 10HM**

WV Department of  
Environmental Protection

4705102286



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

**SLS**  
Land & Energy Development  
Solutions from the ground up.  
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634  
www.slsurveys.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8789	07/27/2018	1" - 1000'

**TUG HILL**  
OPERATING

WW-6A3  
(1/12)

Operator Well No. Knob Creek S-10HM

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

**Notice Time Requirement:** Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry  
**Date of Notice:** 2/5/2018      **Date of Planned Entry:** 2/12/2018

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

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

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

**Notice is hereby provided to:**

SURFACE OWNER(s)  
**Name:** David Lee Franklin (Pad and Access Road)  
**Address:** 131 Saint Joseph Road  
Glen Easton, WV 26039

**Name:** \_\_\_\_\_  
**Address:** \_\_\_\_\_

**Name:** \_\_\_\_\_  
**Address:** \_\_\_\_\_

COAL OWNER OR LESSEE  
**Name:** CNX Land Resources, Inc.  
**Address:** 1000 Consol Energy Drive  
Canonsburg, PA 15318

MINERAL OWNER(s)  
**Name:** David Lee Franklin  
**Address:** 131 Saint Joseph Road  
Glen Easton, WV 26039

\*please attach additional forms if necessary

**Notice is hereby given:**

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

**State:** West Virginia  
**County:** Marshall  
**District:** Meade  
**Quadrangle:** Glen Easton 7.5'

**Approx. Latitude & Longitude:** 39.7700596; -80.7054579  
**Public Road Access:** St. Joseph Road - County Route 21  
**Watershed:** Fish Creek (HUC 10)  
**Generally used farm name:** David Lee Franklin

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

**Notice is hereby given by:**

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

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

**Oil and Gas Privacy Notice:**

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

WW-6A5  
(1/12)Operator Well No. Knob Creek S-10HM

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

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

**Date of Notice:** 10/01/2019      **Date Permit Application Filed:** 10/01/2019

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

CERTIFIED MAIL                                       HAND  
RETURN RECEIPT REQUESTED                                      DELIVERY

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

**Notice is hereby provided to the SURFACE OWNER(s)**

(at the address listed in the records of the sheriff at the time of notice):

Name: David Lee Franklin

Name: \_\_\_\_\_

Address: 131 Saint Joseph Road

Address: \_\_\_\_\_

Glen Easton, WV 26039

**Notice is hereby given:**

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

State:	<u>West Virginia</u>	UTM NAD 83	Easting:	<u>525,231.35</u>
County:	<u>Marshall</u>		Northing:	<u>4,402,289.21</u>
District:	<u>Meade</u>	Public Road Access:	<u>St. Joseph Road - CR 21</u>	
Quadrangle:	<u>Glen Easton 7.5'</u>	Generally used farm name:	<u>David Lee Franklin</u>	
Watershed:	<u>Fish Creek (HUC 10)</u>			

**This Notice Shall Include:**

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

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

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

**Oil and Gas Privacy Notice:**

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

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Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

WW-6RW  
(1-12)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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, Thomas John Fox, by my Attorney-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 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:

State: <u>West Virginia</u>	UTM NAD 83 Easting: <u>525,231.35</u>
County: <u>Marshall</u>	UTM NAD 83 Northing: <u>4,402,289.21</u>
District: <u>Meade</u>	Public Road Access: <u>St. Joseph Road - County Route 21</u>
Quadrangle: <u>Glen Easton 7.5'</u>	Generally used farm name: <u>David Lee Franklin</u>
Watershed: <u>Fish Creek (HUC-10)</u>	

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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Thomas John Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/20/2019

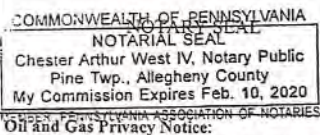
Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Signature: \_\_\_\_\_

Telephone: 724-749-5388



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

\_\_\_\_\_  
Notary Public

My Commission Expires 2-10-2020

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 of your personal information, please contact DEP's Chief Privacy Officer at [denprivacyofficer@wv.gov](mailto:denprivacyofficer@wv.gov).

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Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

**LIMITED POWER OF ATTORNEY**

4705102286

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 (SEAL)

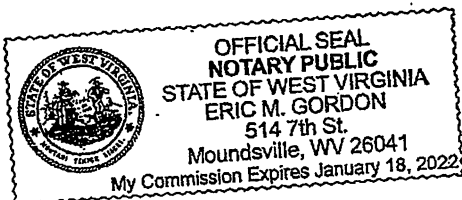
STATE OF West Virginia:  
County of Marshall, to-wit:

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 March, 2018.

My commission expires: Jan 18, 2022

**(NOTARY SEAL/STAMP REQUIRED)**



[Signature]  
Notary Public for the aforesaid  
County and/or State

RECEIVED  
Office of Oil and Gas

OCT 02 2019

**This Instrument Prepared By:**  
Eric M. Gordon, Esquire  
Berry, Kessler, Crutchfield, Taylor & Gordon  
514 Seventh Street  
Moundsville, WV 26041

WV Department of  
Environmental Protection

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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**

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**WAIVER**

I, David Lee Franklin, by my Attorney-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 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:

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County: Marshall UTM NAD 83 Northing: 4,402,289.21  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

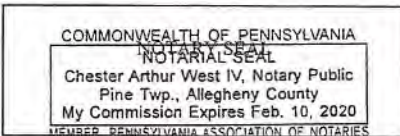
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for David Lee Franklin  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: [Signature]  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: [Signature]  
Telephone: 724-749-8388



Subscribed and sworn before me this 30th day of September 2019  
\_\_\_\_\_  
Notary Public  
My Commission Expires 2-10-2020

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

LIMITED POWER OF ATTORNEY

4705102286

That I, David Lee 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 Lee Franklin 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.

David Lee Franklin (SEAL)

STATE OF West Virginia:

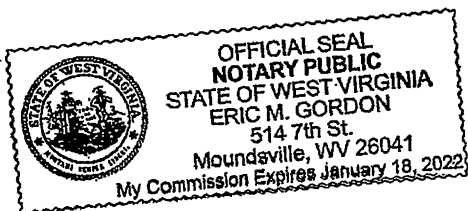
County of Marshall, to-wit:

The foregoing instrument was acknowledged before me this 29th day of March, 2018, by David Lee Franklin.

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

My commission expires: JAN 18, 2022.

(NOTARY SEAL/STAMP REQUIRED)



Eric M. Gordon  
Notary Public for the aforesaid  
County and/or State

RECEIVED  
Office of Oil and Gas

OCT 02 2019

**This Instrument Prepared By:**  
Eric M. Gordon, Esquire  
Berry, Kessler, Crutchfield, Taylor & Gordon  
514 Seventh Street  
Moundsville, WV 26041

WV Department of  
Environmental Protection

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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**

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**WAIVER**

I, Linda Lee Franklin, by my Attorney-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 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:

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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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

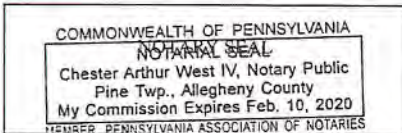
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Linda Lee Franklin  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: [Signature]  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: [Signature]  
Telephone: 724-749-8386



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

\_\_\_\_\_  
Notary Public

My Commission Expires 2-10-2020

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RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection



**LIMITED POWER OF ATTORNEY**

4705102286

That I, Linda Lee 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 Linda Lee Franklin 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 Lee Franklin (SEAL)

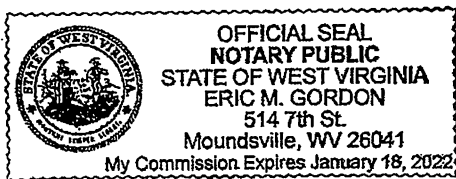
STATE OF West Virginia :  
County of Marshall , to-wit:

The foregoing instrument was acknowledged before me this 29th day of March , 2018, by Linda Lee Franklin.

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

My commission expires: Jan 18, 2022

**(NOTARY SEAL/STAMP REQUIRED)**



Eric M. Gordon

Notary Public for the aforesaid  
County and/or State

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

**This Instrument Prepared By:**

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

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

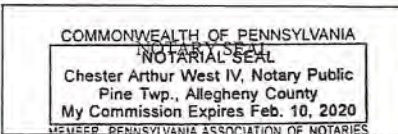
I, Douglas L. DeMartino, Esq., hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages 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:

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Watershed: Fish Creek (HUC-10)

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<b>WELL SITE RESTRICTIONS BEING WAIVED</b> *Please check all that apply  <input type="checkbox"/> EXISTING WATER WELLS  <input type="checkbox"/> DEVELOPED SPRINGS  <input checked="" type="checkbox"/> DWELLINGS  <input type="checkbox"/> AGRICULTURAL BUILDINGS	<b>FOR EXECUTION BY A NATURAL PERSON</b> Signature: _____ Print Name: _____ Date: _____
	<b>FOR EXECUTION BY A CORPORATION, ETC.</b> Company: <u>TH Exploration, LLC</u> By: <u>Douglas L. DeMartino, Esq.</u> Its: <u>Attorney-in-Fact</u> Signature: _____ Date: <u>9/30/2019</u>

Well Operator: Tug Hill Operating, LLC Signature: \_\_\_\_\_  
By: David G. DeLallo Telephone: 724-749-8388  
Its: Land Team Lead



Subscribed and sworn before me this 30<sup>th</sup> day of September 2019  
\_\_\_\_\_  
Notary Public  
My Commission Expires 2-10-2020

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Office of Oil and Gas  
OCT 02 2019  
WV Department of  
Environmental Protection

WW-6RW  
(1-12)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

I, Paul G. Fox, by my Attorney-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 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:

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Quadrangle: <u>Glen Easton 7.5'</u>	Generally used farm name: <u>David Lee Franklin</u>
Watershed: <u>Fish Creek (HUC-10)</u>	

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- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

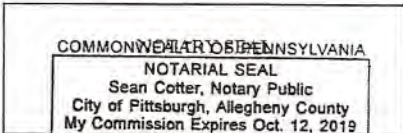
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Paul G. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: [Signature]  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: [Signature]  
Telephone: 724-749-8388



Subscribed and sworn before me this 30 day of September  
\_\_\_\_\_  
Notary Public  
My Commission Expires 10/12/2019

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

LIMITED POWER OF ATTORNEY

4705102286

That I, Paul G. 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 Paul G. 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.

Paul G. Fox 3-24-18 (SEAL)

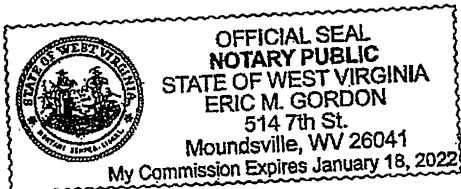
STATE OF West Virginia:  
COUNTY OF Marshall, to-wit:

The foregoing instrument was acknowledged before me this 24th day of March, 2018, by Paul G. Fox.

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

My commission expires: Jan 18, 2022.

(NOTARY SEAL/STAMP REQUIRED)



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  
(304) 845-2580

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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, Mark H. Fox, by my Attorney-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 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:

State: West Virginia UTM NAD 83 Easting: 525,231.35  
County: Marshall UTM NAD 83 Northing: 4,402,289.20  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Mark H. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: [Signature]  
Date: 9/30/2019

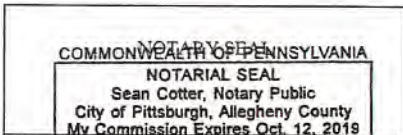
Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Signature: \_\_\_\_\_

Telephone: 724-749-8388



Subscribed and sworn before me this 30 day of September

[Signature] Notary Public

My Commission Expires 10/12/2019

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

**LIMITED POWER OF ATTORNEY**

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 H. 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)

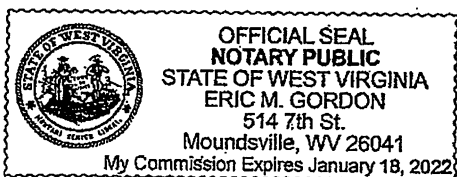
STATE OF West Virginia:  
COUNTY OF Marshall, to-wit:

The foregoing instrument was acknowledged before me this 24th day of March, 2018, by MARK H. FOX.

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

My commission expires: JAN 18, 2022

**(NOTARY SEAL/STAMP REQUIRED)**



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  
(304) 845-2580

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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, David E. Fox by my Attorney-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 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:

State: West Virginia UTM NAD 83 Easting: 525,231.35  
County: Marshall UTM NAD 83 Northing: 4,402,289.21  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

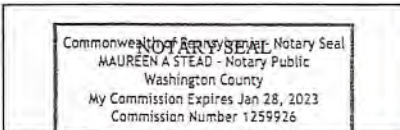
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for David E. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: \_\_\_\_\_  
Telephone: 724-749-8388



Subscribed and sworn before me this 30 day of SEPTEMBER 2019  
Maureen A Stead Notary Public  
My Commission Expires 1/28/23

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

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Office of Oil and Gas  
OCT 02 2019  
WV Department of  
Environmental Protection

**LIMITED POWER OF ATTORNEY 4705102286**

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.

David E. Fox (SEAL)

STATE OF West Virginia :

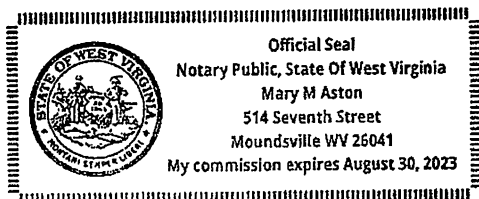
County of Marshall , to-wit:

The foregoing instrument was acknowledged before me this 27 day of March, 2018, by David E. Fox.

Given under my hand this 27 day of March, 2018.

My commission expires: August 30, 2023

**(NOTARY SEAL/STAMP REQUIRED)**



Mary M Aston  
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

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection



WW-6RW  
(1-12)

API NO. 47- -  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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, Mary A. Fox, by my Attorney-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 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:

State: West Virginia UTM NAD 83 Easting: 525,231.35  
County: Marshall UTM NAD 83 Northing: 4,402,289.21  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

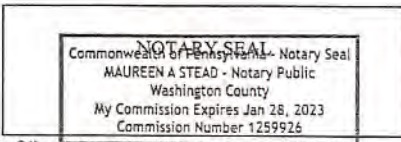
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Mary A. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: \_\_\_\_\_  
Telephone: 724-749-8388



Subscribed and sworn before me this 30 day of SEPTEMBER 2019

Maureen A Stead Notary Public

My Commission Expires 1/28/23

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RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

LIMITED POWER OF ATTORNEY

4705102286

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 Mary 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 A. Fox (SEAL)

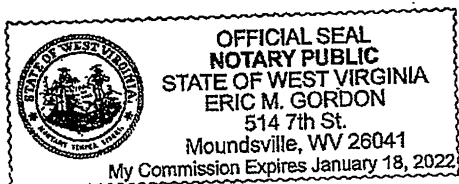
STATE OF West Virginia:  
COUNTY OF Marshall, to-wit:

The foregoing instrument was acknowledged before me this 30th day of March, 2018, by Mary A. Fox.

Given under my hand this 30th day of March, 2018.

My commission expires: Jan 18, 2022

(NOTARY SEAL/STAMP REQUIRED)



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  
(304) 845-2580

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

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**WAIVER**

I, Louis T. Fox, by my Attorney-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 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:

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County: Marshall UTM NAD 83 Northing: 4,402,289.21  
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)

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**WELL SITE RESTRICTIONS BEING WAIVED**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Louis T. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/30/2019

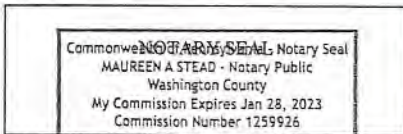
Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Signature: \_\_\_\_\_

Telephone: 724-749-8388



Subscribed and sworn before me this 30 day of SEPTEMBER 2019

Maureen A Stead Notary Public

My Commission Expires 1/28/23

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RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

LIMITED POWER OF ATTORNEY

4705102266

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.

Louis T. Fox 3-24-18 (SEAL)

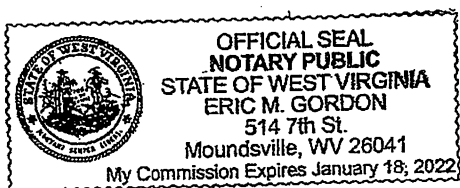
STATE OF West Virginia:  
COUNTY OF Marshall, to-wit:

The foregoing instrument was acknowledged before me this 24<sup>th</sup> day of March, 2018, by Louis T. Fox.

Given under my hand this 24<sup>th</sup> day of March, 2018.

My commission expires: Jan 18, 2022.

(NOTARY SEAL/STAMP REQUIRED)



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  
(304) 845-2580

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10-HM  
Well Pad Name: Knob Creek

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, Thomas John Fox, by my Attorney-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 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:

State: West Virginia UTM NAD 83 Easting: 525,231.35  
County: Marshall UTM NAD 83 Northing: 4,402,289.21  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Thomas John Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/30/2019

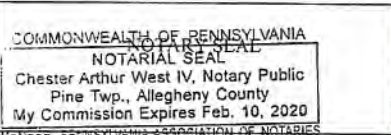
Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Signature: \_\_\_\_\_

Telephone: 724-749-3388



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

\_\_\_\_\_  
Notary Public

My Commission Expires 2-10-2020

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

Marshall County  
Jan Pest, Clerk  
Instrument 1459638  
10/01/2019 @ 02:43:10 PM  
MISCELLANEOUS  
Book 40 # Page 104  
Pages Recorded 1  
Recording Cost \$ 11.00

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

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**WAIVER**

I, David Lee Franklin, by my Attorney-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 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:

State: West Virginia UTM NAD 83 Easting: 525,231.35  
County: Marshall UTM NAD 83 Northing: 4,402,289.21  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for David Lee Franklin  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/20/2019

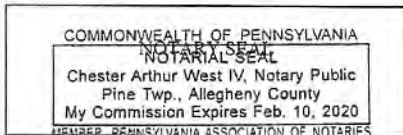
Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Signature: \_\_\_\_\_

Telephone: 724-749-8388



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

Notary Public

My Commission Expires 2-10-2020

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

Marshall County  
Jan Pest, Clerk  
Instrument 1459639  
10/01/2019 @ 02:43:11 PM  
MISCELLANEOUS  
Book 40 @ Page 105  
Pages Recorded 1  
Recording Cost \$ 11.00

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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.

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**WAIVER**

I, Linda Lee Franklin, by my Attorney-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 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:

State: West Virginia UTM NAD 83 Easting: 525,231.35  
County: Marshall UTM NAD 83 Northing: 4,402,289.21  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

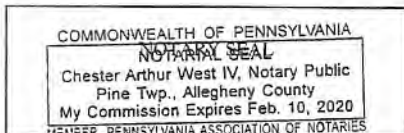
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Linda Lee Franklin  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: \_\_\_\_\_  
Telephone: 724-749-8388



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

\_\_\_\_\_  
Notary Public

My Commission Expires 2-10-2020

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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 of your personal information, please contact DEP's Chief Privacy Officer at [deprivacyofficer@wv.gov](mailto:deprivacyofficer@wv.gov).

Marshall County  
Jan Pest, Clerk  
Instrument 1459640  
10/01/2019 @ 02:43:12 PM  
MISCELLANEOUS  
Book 40 @ Page 106  
Pages Recorded 1  
Recording Cost \$ (1.00)

4705102286

WW-6RW  
(1-12)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

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**WAIVER**

I, Douglas L. DeMartino, Esq., 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:

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County: Marshall UTM NAD 83 Northing: 4,402,269.21  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

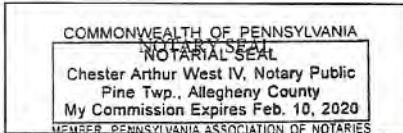
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC  
By: Douglas L. DeMartino, Esq.  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: \_\_\_\_\_  
Telephone: 724-749-8388



Subscribed and sworn before me this 30<sup>th</sup> day of September 2019

\_\_\_\_\_  
Notary Public

My Commission Expires 2-10-2020

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Marshall County  
Jan Pest, Clerk  
Instrument 1459641  
10/01/2019 @ 02:43:13 PM  
MISCELLANEOUS  
Book 40 @ Page 107  
Pages Recorded 1  
Recording Cost \$ 11.00



4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

I, Paul G. Fox, by my Attorney-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 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:

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Quadrangle: Glen Easton 7.5' Generally used farm name: David Lee Franklin  
Watershed: Fish Creek (HUC-10)

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\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Paul G. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/30/2019

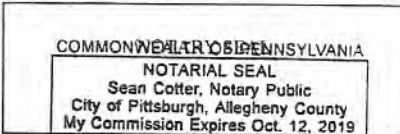
Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Signature: \_\_\_\_\_

Telephone: 724-749-8388



Subscribed and sworn before me this 30 day of September

\_\_\_\_\_  
Notary Public

My Commission Expires 10/12/2019

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Marshall County  
Jan Pest, Clerk  
Instrument 1459642  
10/01/2019 @ 02:43:14 PM  
MISCELLANEOUS  
Book 40 @ Page 108  
Pages Recorded 1  
Recording Cost \$ 11.00

4705102286

WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

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**WAIVER**

I, Mark H. Fox, by my Attorney-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 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:

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County: Marshall UTM NAD 83 Northing: 4,402,289.20  
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)

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- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

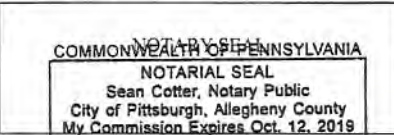
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Mark H. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: [Signature]  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: \_\_\_\_\_  
Telephone: 724-749-8388



Subscribed and sworn before me this 30 day of September  
\_\_\_\_\_  
Notary Public

My Commission Expires 10/12/2019

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Marshall County  
Jan Pest, Clerk  
Instrument 1459643  
10/01/2019 @ 02:43:15 PM  
MISCELLANEOUS  
Book 40 @ Page 109  
Pages Recorded 1  
Recording Cost \$ 11.00

4705102286

WW-6RW  
(1-12)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

I, David E. Fox by my Attorney-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 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:

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County: Marshall UTM NAD 83 Northing: 4,402,289.21  
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**

\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for David E. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: [Signature]  
Date: 9/30/2019

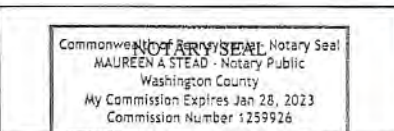
Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Signature: \_\_\_\_\_

Telephone: 724-749-8888



Subscribed and sworn before me this 30 day of SEPTEMBER 2019

Maureen A. Stead Notary Public

My Commission Expires 1/28/23

**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 of your personal information, please contact DEP's Chief Privacy Officer at [depprivacyofficer@wv.gov](mailto:depprivacyofficer@wv.gov).

Marshall County  
Jan Pest, Clerk  
Instrument 1459644  
10/01/2019 @ 02:43:16 PM  
MISCELLANEOUS  
Book 40 @ Page 110  
Pages Recorded 1  
Recording Cost \$ 11.00

4705102286

WW-6RW  
(1-12)

API NO. 47- \_\_\_\_\_  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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

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**WAIVER**

I, Mary A. Fox, by my Attorney-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 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:

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\*Please check all that apply

- EXISTING WATER WELLS
- DEVELOPED SPRINGS
- DWELLINGS
- AGRICULTURAL BUILDINGS

**FOR EXECUTION BY A NATURAL PERSON**

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

**FOR EXECUTION BY A CORPORATION, ETC.**

Company: TH Exploration, LLC as Attorney-in-Fact for Mary A. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/29/2019

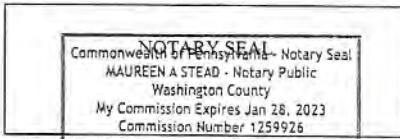
Well Operator: Tug Hill Operating, LLC

By: David G. DeLallo

Its: Land Team Lead

Signature: \_\_\_\_\_

Telephone: 724-749-8388



Subscribed and sworn before me this 30 day of SEPTEMBER 2019

Maureen A Stead Notary Public

My Commission Expires 1/28/23

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WW-6RW  
(1-12)

API NO. 47-  
OPERATOR WELL NO. Knob Creek S-10HM  
Well Pad Name: Knob Creek

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DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
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**WAIVER**

I, Louis T. Fox, by my Attorney-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 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:

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**FOR EXECUTION BY A NATURAL PERSON**

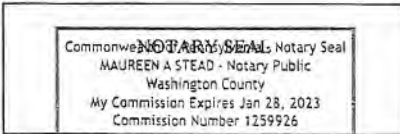
Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Date: \_\_\_\_\_

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Company: TH Exploration, LLC as Attorney-in-Fact for Louis T. Fox  
By: Douglas L. DeMartino  
Its: Attorney-in-Fact  
Signature: \_\_\_\_\_  
Date: 9/30/2019

Well Operator: Tug Hill Operating, LLC  
By: David G. DeLallo  
Its: Land Team Lead

Signature: \_\_\_\_\_  
Telephone: 724-749-8888



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Maureen A Stead Notary Public  
My Commission Expires 1/28/23

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## WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

## Division of Highways

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

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

October 1, 2019

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	Knob Creek Unit N-2HM	Knob Creek Unit N-3HM
Knob Creek Unit S-6HM	Knob Creek Unit S-7HM	Knob Creek Unit S-8HM
Knob Creek Unit S-9HM	Knob Creek Unit S-10HM	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

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection



PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION

Well No. Knob Creek S-10HM

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

RECEIVED  
Office of Oil and Gas

OCT 02 2019

WV Department of  
Environmental Protection



**WVDEP OOG  
ACCEPTED AS-BUILT**

10/8/2019

**Knob Creek 1 Site**  
Site Design, Construction Plan, &  
Erosion and Sediment Control Plans  
Tug Hill Operating  
Marshall County  
Meade District  
Latitude 39.77005962°  
Longitude -80.70545789°  
Middle Fish Creek Watershed

**Pertinent Site Information**  
Knob Creek 1 Site  
Emergency Number: 304-845-1920  
Meade District, Marshall County, WV  
Watershed: Middle Fish Creek Watershed  
Tug Hill Contact Number: 1-817-632-3400

**Property Owner Information - Knob Creek 1 Site**

Owner	WT Parcel	WV Parcel	Acres	County	Local	State	Federal	Total
WV State	14-11	0-22	0-00	0-00	0-00	0-00	0-00	14-11
WV Private	0-00	0-00	0-00	0-00	0-00	0-00	0-00	0-00
<b>Total</b>	<b>14-11</b>	<b>0-22</b>	<b>0-00</b>	<b>0-00</b>	<b>0-00</b>	<b>0-00</b>	<b>0-00</b>	<b>14-33</b>

**Exhibit A: Final Design: Issue for Permitting**

WT Parcel	WV Parcel	Acres	County	Local	State	Federal	Total
WV 14-11-001-001	0-22-001-001	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-002	0-22-001-002	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-003	0-22-001-003	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-004	0-22-001-004	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-005	0-22-001-005	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-006	0-22-001-006	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-007	0-22-001-007	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-008	0-22-001-008	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-009	0-22-001-009	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-010	0-22-001-010	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-011	0-22-001-011	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-012	0-22-001-012	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-013	0-22-001-013	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-014	0-22-001-014	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-015	0-22-001-015	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-016	0-22-001-016	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-017	0-22-001-017	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-018	0-22-001-018	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-019	0-22-001-019	0.00	Marshall	0.00	0.00	0.00	0.00
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WV 14-11-001-021	0-22-001-021	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-022	0-22-001-022	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-023	0-22-001-023	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-024	0-22-001-024	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-025	0-22-001-025	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-026	0-22-001-026	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-027	0-22-001-027	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-028	0-22-001-028	0.00	Marshall	0.00	0.00	0.00	0.00
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WV 14-11-001-031	0-22-001-031	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-032	0-22-001-032	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-033	0-22-001-033	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-034	0-22-001-034	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-035	0-22-001-035	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-036	0-22-001-036	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-037	0-22-001-037	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-038	0-22-001-038	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-039	0-22-001-039	0.00	Marshall	0.00	0.00	0.00	0.00
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WV 14-11-001-041	0-22-001-041	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-042	0-22-001-042	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-043	0-22-001-043	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-044	0-22-001-044	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-045	0-22-001-045	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-046	0-22-001-046	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-047	0-22-001-047	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-048	0-22-001-048	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-049	0-22-001-049	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-050	0-22-001-050	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-051	0-22-001-051	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-052	0-22-001-052	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-053	0-22-001-053	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-054	0-22-001-054	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-055	0-22-001-055	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-056	0-22-001-056	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-057	0-22-001-057	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-058	0-22-001-058	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-059	0-22-001-059	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-060	0-22-001-060	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-061	0-22-001-061	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-062	0-22-001-062	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-063	0-22-001-063	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-064	0-22-001-064	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-065	0-22-001-065	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-066	0-22-001-066	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-067	0-22-001-067	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-068	0-22-001-068	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-069	0-22-001-069	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-070	0-22-001-070	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-071	0-22-001-071	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-072	0-22-001-072	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-073	0-22-001-073	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-074	0-22-001-074	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-075	0-22-001-075	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-076	0-22-001-076	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-077	0-22-001-077	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-078	0-22-001-078	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-079	0-22-001-079	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-080	0-22-001-080	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-081	0-22-001-081	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-082	0-22-001-082	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-083	0-22-001-083	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-084	0-22-001-084	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-085	0-22-001-085	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-086	0-22-001-086	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-087	0-22-001-087	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-088	0-22-001-088	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-089	0-22-001-089	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-090	0-22-001-090	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-091	0-22-001-091	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-092	0-22-001-092	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-093	0-22-001-093	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-094	0-22-001-094	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-095	0-22-001-095	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-096	0-22-001-096	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-097	0-22-001-097	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-098	0-22-001-098	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-099	0-22-001-099	0.00	Marshall	0.00	0.00	0.00	0.00
WV 14-11-001-100	0-22-001-100	0.00	Marshall	0.00	0.00	0.00	0.00



**Access Road**

Station	Elevation	Station	Elevation
1+00	1020.00	2+00	1015.00
3+00	1010.00	4+00	1005.00
5+00	995.00	6+00	990.00
7+00	985.00	8+00	980.00
9+00	975.00	10+00	970.00

**Disturbed Area**

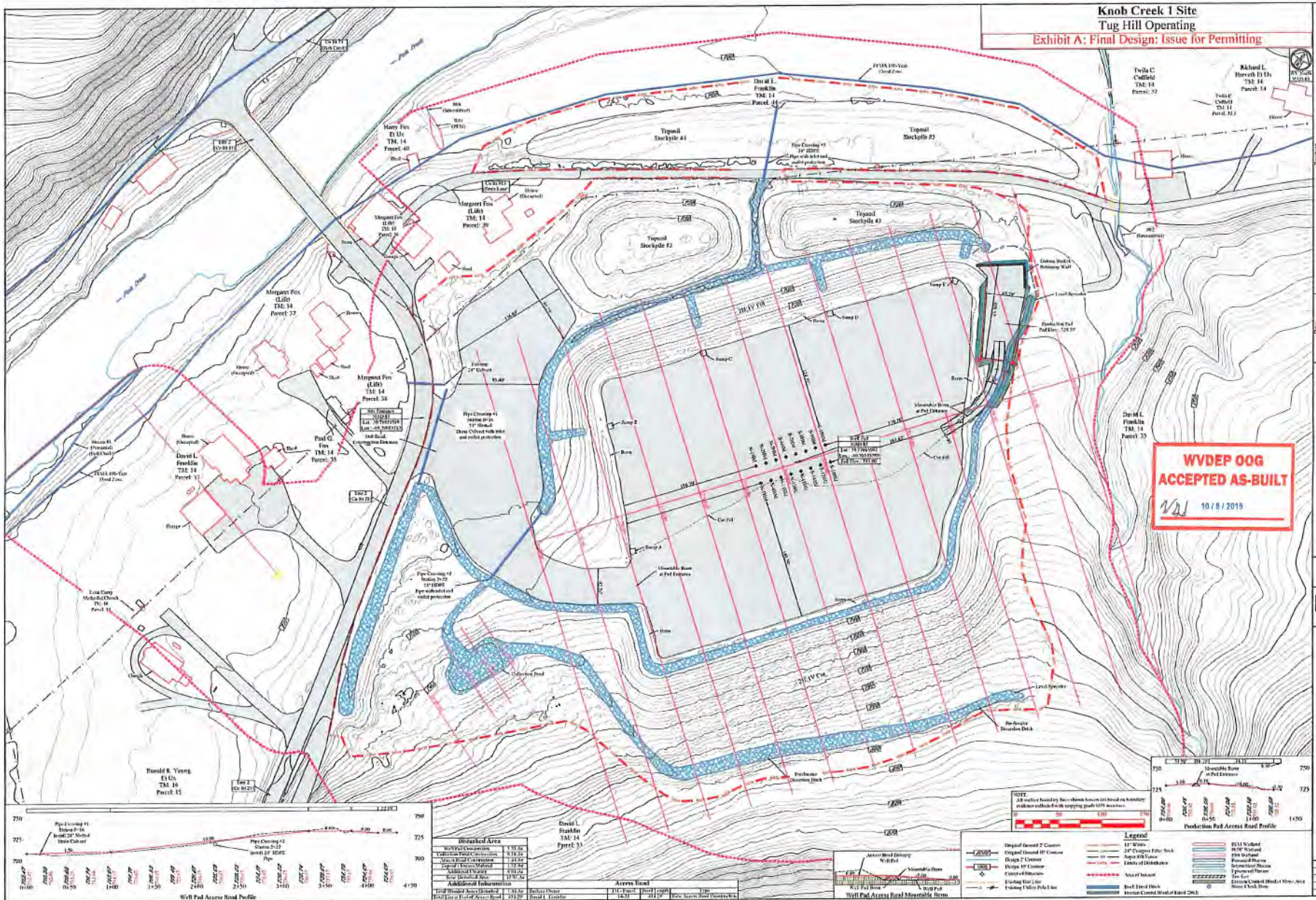
Category	Area (Acres)
Well Pad	0.10
Access Road	0.10
Construction Area	0.10
Other	0.10
<b>Total</b>	<b>0.40</b>

**Knob Creek 1 Site Quantities**

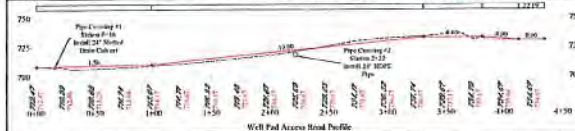
Category	Quantity
Well Pad	0.10
Access Road	0.10



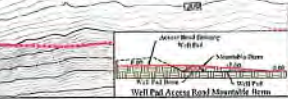
**Knob Creek 1 Site**  
**Tug Hill Operating**  
**Exhibit A: Final Design: Issue for Permitting**



**WVDEP OOG  
ACCEPTED AS-BUILT**  
 10/8/2019



Item	Quantity	Unit
Unshaded Area	1,150.00	Sq. Ft.
WVDEP Construction	3,124.00	Sq. Ft.
Topsoil Stockpile	41,100.00	Sq. Ft.
Topsoil #1	1,100.00	Sq. Ft.
Topsoil #2	1,100.00	Sq. Ft.
Topsoil #3	1,100.00	Sq. Ft.
Topsoil #4	1,100.00	Sq. Ft.
Topsoil #5	1,100.00	Sq. Ft.
Topsoil #6	1,100.00	Sq. Ft.
Topsoil #7	1,100.00	Sq. Ft.
Topsoil #8	1,100.00	Sq. Ft.
Topsoil #9	1,100.00	Sq. Ft.
Topsoil #10	1,100.00	Sq. Ft.
Topsoil #11	1,100.00	Sq. Ft.
Topsoil #12	1,100.00	Sq. Ft.
Topsoil #13	1,100.00	Sq. Ft.
Topsoil #14	1,100.00	Sq. Ft.
Topsoil #15	1,100.00	Sq. Ft.
Topsoil #16	1,100.00	Sq. Ft.
Topsoil #17	1,100.00	Sq. Ft.
Topsoil #18	1,100.00	Sq. Ft.
Topsoil #19	1,100.00	Sq. Ft.
Topsoil #20	1,100.00	Sq. Ft.
Topsoil #21	1,100.00	Sq. Ft.
Topsoil #22	1,100.00	Sq. Ft.
Topsoil #23	1,100.00	Sq. Ft.
Topsoil #24	1,100.00	Sq. Ft.
Topsoil #25	1,100.00	Sq. Ft.
Topsoil #26	1,100.00	Sq. Ft.
Topsoil #27	1,100.00	Sq. Ft.
Topsoil #28	1,100.00	Sq. Ft.
Topsoil #29	1,100.00	Sq. Ft.
Topsoil #30	1,100.00	Sq. Ft.
Topsoil #31	1,100.00	Sq. Ft.
Topsoil #32	1,100.00	Sq. Ft.
Topsoil #33	1,100.00	Sq. Ft.
Topsoil #34	1,100.00	Sq. Ft.
Topsoil #35	1,100.00	Sq. Ft.
Topsoil #36	1,100.00	Sq. Ft.
Topsoil #37	1,100.00	Sq. Ft.
Topsoil #38	1,100.00	Sq. Ft.
Topsoil #39	1,100.00	Sq. Ft.
Topsoil #40	1,100.00	Sq. Ft.
Topsoil #41	1,100.00	Sq. Ft.
Topsoil #42	1,100.00	Sq. Ft.
Topsoil #43	1,100.00	Sq. Ft.
Topsoil #44	1,100.00	Sq. Ft.
Topsoil #45	1,100.00	Sq. Ft.
Topsoil #46	1,100.00	Sq. Ft.
Topsoil #47	1,100.00	Sq. Ft.
Topsoil #48	1,100.00	Sq. Ft.
Topsoil #49	1,100.00	Sq. Ft.
Topsoil #50	1,100.00	Sq. Ft.



**Legend**

- Topsoil Stockpile #1 Contour
- Topsoil Stockpile #2 Contour
- Topsoil Stockpile #3 Contour
- Topsoil Stockpile #4 Contour
- Topsoil Stockpile #5 Contour
- Topsoil Stockpile #6 Contour
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**TUG HILL OPERATING**

**THIS DOCUMENT PREPARED FOR TUG HILL OPERATING**

**Knob Creek 1 Site**  
 Meads District  
 Marshall County, WV

Site Plan  
 Knob Creek 1 Site  
 Meads District  
 Marshall County, WV

Drawn: 05/20/2018  
 Scale: As Shown  
 Developed By: ZS  
 Date: 10/8/2019  
 Sheet # of 11