

west virginia department of environmental protection

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

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

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

TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD

CANONSBURG, PA 15317

Permit approval for KNOB CREEK N-1HM

47-051-02278-00-00

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

Operator's Well Number: KNOB CREEK N-1HM

Farm Name: DAVID LEE FRANKLIN

U.S. WELL NUMBER: 47-051-02278-00-00

Horizontal 6A New Drill

Date Issued: 12/3/2019

Promoting a healthy environment.

API Number:	
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PERMIT CONDITIONS 4705102278

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

- 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.

PERMIT CONDITIONS

4705102278

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

WW-6B (04/15)

API NO. 47-051 -	
OPERATOR WELL	NO. Knob Creek N-1HM
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 Op	erating, LLC	494510851	Marshall	Meade	Powhatan Point 7
Service Control of the Control of th		Operator ID	County	District	Quadrangle
2) Operator's Well Number: Kn	ob Creek N-1H	Mell P	ad Name: Kno	b Creek	
3) Farm Name/Surface Owner:	David Lee Fran	nklin Public R	oad Access: St	. Joseph Ro	oad - CR 21
4) Elevation, current ground:	734.67' I	Elevation, propose	d post-construc	tion: 734.6	57'
5) Well Type (a) Gas x	Oil _	Un	derground Stor	age	
Other					
(b)If Gas Sha	allow x	Deep			
Hor	rizontal X		Me	3/07/19	
6) Existing Pad: Yes or No No			_	7/21/11	
 Proposed Target Formation(s Marcellus is the target formation at a depth of 6187' - 6238', 	A		A	Pressure(s):	
-		e- seriessons rossessons es e	•		
8) Proposed Total Vertical Dept	h: 6338'				
9) Formation at Total Vertical D	epth: Ononda	ga			
10) Proposed Total Measured D	epth: 7,307'				
11) Proposed Horizontal Leg Le	ength: 520.40'				
12) Approximate Fresh Water S	trata Depths:	40'; 380'			
13) Method to Determine Fresh	Water Depths:	Use shallow offset wells to determine de	epest freshwater, or determine usin	ng pre-crill tests, festing whil	e drilling or petrophysical evaluation of resistivity.
14) Approximate Saltwater Dep					
15) Approximate Coal Seam De	pths: Sewickle	y Coal - 292' and	Pittsburgh Co	oal - 374'	
16) Approximate Depth to Possi	ble Void (coal n	nine, karst, other):	None		
17) Does Proposed well location directly overlying or adjacent to			N	Io X	
(a) If Yes, provide Mine Info:	Name:				
	Depth:				
	Seam:				
	Owner:				
			RECEIVE Office of Oil ar	D nd Gas	

WW-6B (04/15)

API	NO. 47-	051	-		
	OPERAT	OR W	ELL	NO.	Knob Creek N-1HM
	Well Pa	d Nan	ne:	Knob (Creek

18)

CASING AND TUBING PROGRAM

TYPE	Size (in)	New or Used	<u>Grade</u>	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^3(CTS)
Fresh Water	13 3/8"	NEW	J55	54.5#	480'	480'	683ft^3(CTS)
Coal	13 3/8"	NEW	J55	54.5#	480'	480'	683ft^3(CTS)
Intermediate	9 5/8"	NEW	J55	36#	2,253'	2,253'	729ft^3(CTS)
Production	5 1/2"	NEW	P110	20#	7,307'	7,307'	1,890ft^3(CTS)
Tubing	2 3/8"	NEW	N80	4.7#	6,349'		
Liners							

Jug/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 N-1HM
Well Pad Name: Knob Creek

Defrila

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 1,300,000 lb. proppant and 20,099 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

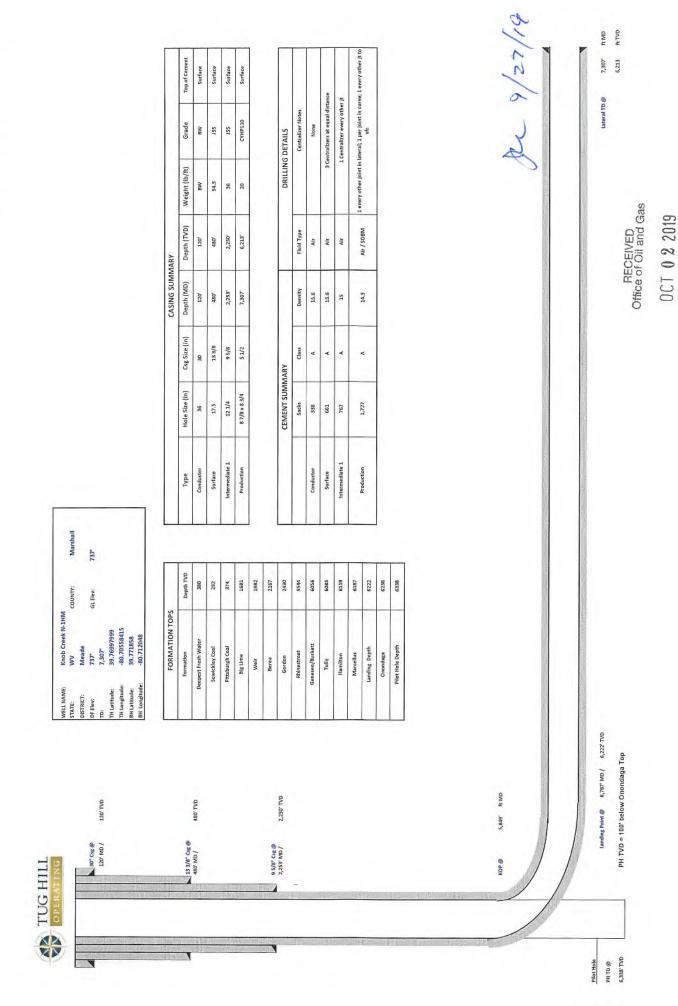
25) Proposed borehole conditioning procedures:

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

Office of Oil and Gas

OCT 0 2 2019

^{*}Note: Attach additional sheets as needed.





Tug Hill Operating, LLC Casing and Cement Program

Knob Creek N-1HM

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"	2,253'	CTS
Production	5 1/2"	CYHP110	8 7/8 x 8 3/4	7,307'	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

50:50 Poz: Premium NE-1 + .1% bwoc ASA-301 + 60lb/sk ASCA-1 + .35% bwoc BA-10A + .25% bwoc MPA-170, Production: 44 lb sack + .5% bwoc R-3 + .75 gals/100sk FP-13L — Production Cement mixed at 15.2ppg, Y = 1.19

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Area of Review

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

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

Data Sources Reviewed:

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

Contacted Devin Ducoeur 724-705-0444, <u>dducoeur@dpslandservices.com</u> 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

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Permit well - Knob Creek N-1HM

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

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

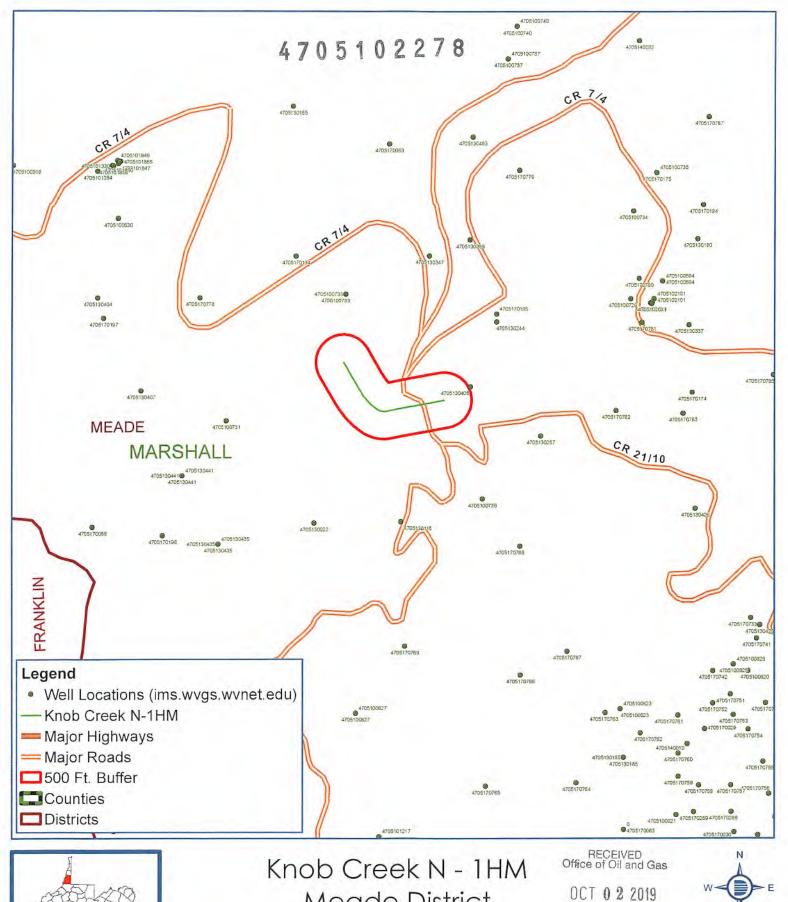
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Map Created: September 25, 2019 Map Current As Of: September 25, 2019

Meade District Marshall County, WV

2,600 Feet

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





WW-9 (4/16)

API Number 47 - 051

Operator's Well No. Knob Creek N-1HMRECEIVED
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STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

OCT 0 2 2019

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Tug Hill Operating, LLC	OP Code 494510851
Watershed (HUC 10)_Fish Creek	Quadrangle Glen Easton 7.5'
Do you anticipate using more than 5,000 bbls of wate Will a pit be used? Yes No V	er to complete the proposed well work? Yes V 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	S No V If so, what ml.? AST Tanks will be used with proper contains.
Proposed Disposal Method For Treated Pit V	Vastes:
Land Application	
Underground Injection (U Reuse (at API Number	ЛС Permit Number_ UIC 2459, UIC 965, UIC 359, UIC 2D0732540, UIC 2D0732523)
	form WW-9 for disposal location)
Will closed loop system be used? If so, describe: Ye	es - For Vertical and Horizontal Drilling
Drilling medium anticipated for this well (vertical and	d horizontal)? Air, freshwater, oil based, etc. Air for vertical / Oil for Horizontal
-If oil based, what type? Synthetic, petroleur	m, etc. Synthetic Oil Base
Additives to be used in drilling medium? Barite for we	eight
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 mediu	m will be used? (cement, lime, sawdust) N/A
-Landfill or offsite name/permit number?we	stzel County Sanitary Landfil (SWF-1021 / WV0109185) and Westmoreland Sanitary Landfill, LLC (SAN1405 / PA DEP EC#1385426)
Permittee shall provide written notice to the Office of West Virginia solid waste facility. The notice shall be where it was properly disposed.	Oil and Gas of any load of drill cuttings or associated waste rejected at any provided within 24 hours of rejection and the permittee shall also disclose
on August 1, 2005, by the Office of Oil and Gas of the provisions of the permit are enforceable by law. Violaw or regulation can lead to enforcement action. I certify under penalty of law that I have papplication form and all attachments thereto and t	erms and conditions of the GENERAL WATER POLLUTION PERMIT issued as West Virginia Department of Environmental Protection. I understand that the plations of any term or condition of the general permit and/or other applicable personally examined and am familiar with the information submitted on this hat, based on my inquiry of those individuals immediately responsible for action is true, accurate, and complete. I am aware that there are significant the possibility of fine or imprisonment.
Subscribed and sworn before me this	day of SEFTEMBER, 2019
Maureen A Sta	Notary PublicCommonwealth of Pennsylvania - Not
My commission expires	MAUREEN A STEAD - Notary Publ Washington County My Commission Expires Jan 28, 20

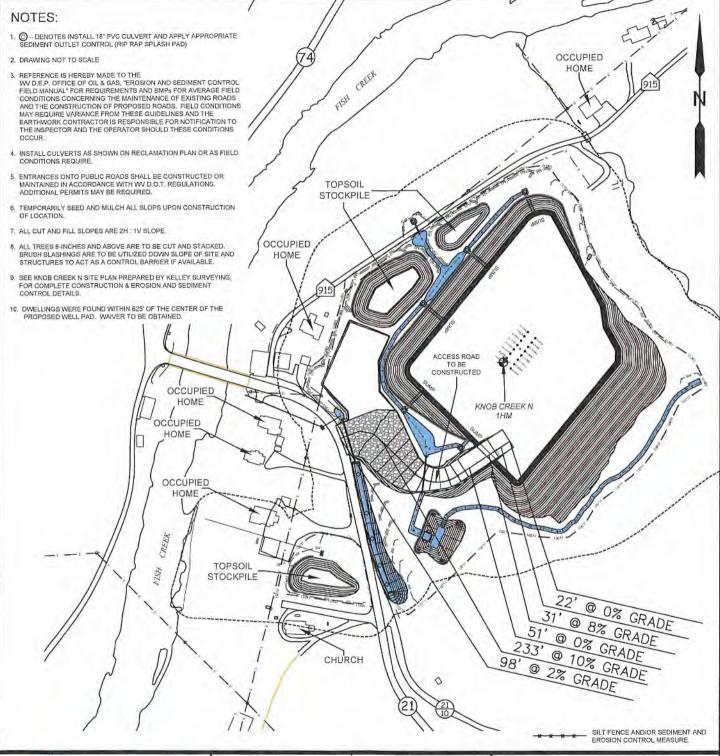
	nent: Acres Disturbed 1	2.93 Prevegetation pH	6.0
Lime 3	Tons/acre or to corre	ct to pH 6.5	
Fertilizer type 10-20	0-20		
Fertilizer amount 50	0	lbs/acre	
Mulch 2.5		_Tons/acre	
		Seed Mixtures	
Ten	nporary	Perma	nent
Seed Type	lbs/acre	Seed Type	lbs/acre
Annual Ryegrass	40	Orchard Grass	12
Spring Oats	96	Ladino	3
		White Clover	2
Attach: Maps(s) of road, location, pit a provided). If water from the pi acreage, of the land application Photocopied section of involve	it will be land applied, ind n area.	d application (unless engineered plans included lude dimensions (L \times W \times D) of the pit, and	ing this info have dimensions (L x V
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OCT 0 2 2019

WW-9

PROPOSED KNOB CREEK N - 1HM

WV Department of Environmental Protestion PLEMENT PG. 1





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





Well Site Safety Plan

Tug Hill Operating, LLC

Well Name: Knob Creek N-1HM

Pad Location: Knob Creek Pad

Marshall County, West Virginia

UTM (meters), NAD83, Zone 17:

Northing: 4,402,269.20

Easting: 525,215.39

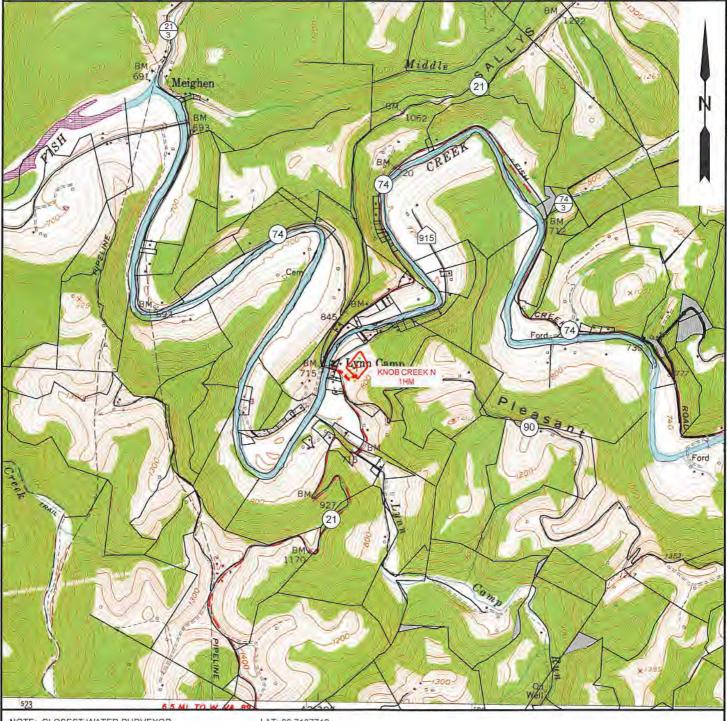
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WW-9

PROPOSED WV Department of SUPPLEMENT PG. 2 KNOB CREEK N - 1HM 4 7 0 5 1 0 2 2 7 8



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

LAT: 39.7137712 LON: -80.8258327

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



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



KNOB CREEK N LEASE WELL 1HM TUG HILL OPERATING

NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS \$\geq 2500 \text{ 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 WY DOT COUNTY ROUTE 74 IS A 40' STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.

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. 464,839.63 NAD'83 GEO. NAD'83 UTM (M)

NAD'83 GEO.

NAD'83 UTM (M)

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

E. 1.629,638,52 LAT-(N) 39.769980 LONG-(W) 80.705584 E. 525,215.39

N. 4,402,269.20 LANDING POINT

NAD'83 S.P.C.(FT) N. 465,094.0 E. 1.628.085.2 LAT-(N) 39.770621 LONG-(W) 80.711122 N. 4,402,338.8 E. 524,740.9

BOTTOM HOLE N. 465,548.1

E. 1,627,831.0 LONG-(W) 80.712048

NAD'83 GEO. LAT-(N) 39.771858 NAD'83 UTM (M) N. 4,402,475,8 E. 524,661.1 LONGITUDE T.H. B.H.

80°40'00" 80°42'30"

	ACRES	ADJOINING SURFACE OWNER LIST	MAP/PARCEL
	2.222	CONSOLIDATION COAL COMPANY, MURRAY ENERGY	9-6-1,2
	1.00	DAVID & PAMELA SCHIMMEL	9-10-7
	2.00	BRENT ALLEN CONNER	9-10-8
	15,00	WILLIAM MCCONNELL	9-10-14
	0.859	WILLIAM D. MCCONNELL	9-10-16
	1,033	GERALD F. PADLOW	9-11-1
	50 X 100 SQ.FT.	ARTHUR L. MOORE	9-13-9
	3.96	ARTHUR L. MOORE	9-13-10
	2.632	ROBERT T. & BARBARA A. ANKROM	9-13-12.1
	3,00	MARGARET K. FOX - LIFE	9-13-14
	21.354	IVAN H. & MARGARET A. RICHMOND	9-13-16
	11.82	HENRY, JR. & BARBARA DICK	9-13-22.1
	0.925	EUGENE A. SCHERRER	9-13-22.2
B.H.	1,52	MARGARET FOX - LIFE	9-13-23
D.FF.	1.02	KENNETH N. & TERESA A. SMERTNECK	9-14-1.2
	23,424	PATRICK J. SCHELLHASE - TRUST	9-14-11.3
	3,029	CHARLES R. SCHELLHASE, ET UX	9-14-28
	0.209	ANDREW FASOULETOS, ET UX	9-14-29
	1.171	ANDREW FASOULETOS, ET UX	9-14-29.1
	0.35	WILLIAM C. GROFT, ET UX	9-14-30
	0,954	WILFORD F. NELSON, JR., ET UX	9-14-31
	0.583	TWILA C. COFFIELD	9-14-32
	0.184	TWILA C. COFFIELD	9-14-32.1
	0,338	PAUL G. FOX	9-14-35
	1600 SQ. FT.	MARGARET FOX - LIFE	9-14-36
	8675 SQ. FT.	MARGARET FOX - LIFE	9-14-39
	19,560 SQ. FT.	MARGARET FOX - LIFE	9-14-40
	9165 SO, FT.	MARGARET FOX - LIFE	9-14-41
	1.87	JOHN C. LAGOS, ET UX	9-14-42
	0.66	JAMES G, FOX	9-14-43
	2.913	DAVID LEE FRANKLIN	9-14-44
	4.423	GEORGE R. TAYLOR, ET UX	9-14-44.1
	10,98	GEORGE R. TAYLOR, ET UX	9-14-45
	18.888	MARGARET K. FOX - LIFE	9-14-46
	0.355	MICHAEL L. & CHERYL J. ACREE	9-14-47
	0.473	MICHAEL L. & CHERYL J. ACREE	9-14-48
	0.118	MICHAEL L. & CHERYL J. ACREE	9-14-49
	0.707	RONALD MARSH	9-14-50
	1,621	GEORGE R. TAYLOR, ET UX	9-14-51
	0.439	JAMES E. PEELMAN	9-14-52
1	0.555	JAMES E. PEELMAN	9-14-53
	1.649	RICHARD L, HARVETH, ET UX	9-14-54
1	0.762	LYNN CAMP METHODIST CHURCH	9-16-14
	52.02	RONALD R. YOUNG, ET UX - LIFE	9-16-15

REFERENCES 14-33 FIELD REBAR CENTER OF WELL PAD KNOB CREEK N 5/8" REBAR FIELD 1" = 400'16-15

Land & Energy Development P.O. Box 150 • 12 Vanhorn C lle, WW 28351 • (304) 462-5634

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL

THE INFORMATION REQUIRED BY LAW AND

THE REGULATIONS ISSUED AND PRESCRIBED BY THE DIVISION OF ENVIRONMENTAL PROTECTION.

P.S 849

No. 849
STATE OF
STONAL SURVIVIONAL SURVIV 8789P1HMR.dwg

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

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

DATE JULY 27 , 20 _ 18

REVISED SEPTEMBER 30 , 20 _ 19 KNOB CREEK N-1HM OPERATORS WELL NO.

API

WELL 47 051 STATE COUNTY

02278 PERMIT

PERMIT

FILE NO. STATE OF WEST VIRGINIA MINIMUM DEGREE KNOB CREEK N-1HM REV3 OF ACCURACY DIVISION OF ENVIRONMENTAL PROTECTION 1" = 2000 SCALE HORIZONTAL & VERTICAL OFFICE OF OIL AND GAS

LIQUID WASTE WELL "GAS" PRODUCTION X STORAGE _ SHALLOW_ GAS X _ INJECTION_ DISPOSAL OIL_ TYPE: GROUND = 734.20' LOCATION: _ WATERSHED ___ FISH CREEK (HUC 10) PROPOSED = 734.67' ELEVATION _ COUNTY NAME GLEN EASTON 7.5

CTOR MO

DISTRICT MEADE COUNTY MARSHALL QUADRANGLE SURFACE OWNER ___ DAVID LEE FRANKLIN 65.824± ACREAGE . ROYALTY OWNER ___ DAVID LEE FRANKLIN, ET AL - SEE WW-6A1 65.824± ACREAGE _

PROPOSED WORK:

SEE WW-6A1 LEASE NO. -FRACTURE OR STIMULATE X PLUG OFF OLD REDRILL .

DRILL DEEPER __ DRILL X CONVERT _ OTHER

_ CLEAN OUT AND REPLUG_ PLUG AND ABANDON _ FORMATION ____ PERFORATE NEW FORMATION ___ TARGET FORMATION ___ MARCELLUS PHYSICAL CHANGE IN WELL (SPECIFY)

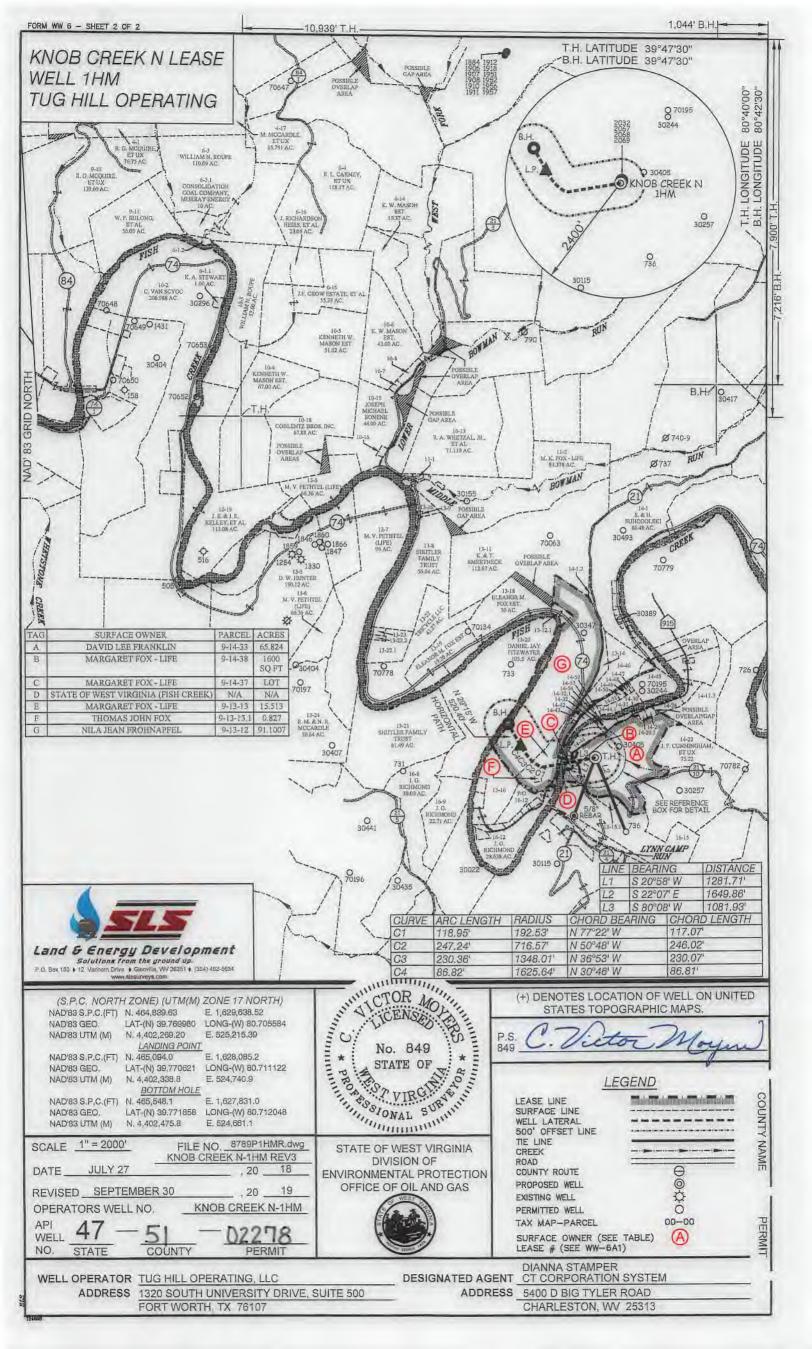
TVD: 6,338' / TMD: 7,307 ESTIMATED DEPTH_

DIANNA STAMPER CT CORPORATION SYSTEM WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500

FORT WORTH, TX 76107

ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313



WW-6A1 (5/13)

Operator's Well No.	Knob Creek N-1HM	
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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.	Dovalty	Book/Page
rumoer	Grantor, Lesson, etc.	Grantee, Lessee, etc.	Royalty	DOOK/1 age

*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
RECEIVED	By:	Amy L. Miller Wy Klulle
Office of Oil and Gas	Its:	Permitting Specialist - Appalachia Region
OCT 0.9 2010		

UCI 0 2 2019

WV Department of Environmental Protection

Page 1 of

4705102278

Operator's Well No. Knob Creek N - 1HM

N/A	135	951	1/8+	TH EXPLORATION LLC	RONALD L WEST	E	9-13-13	10*21107
N/A	137	951	1/8+	TH EXPLORATION LLC		Э	9-13-13	10*21105
N/A	131	951	1/8+	TH EXPLORATION LLC	LARRY W BAILEY AND MARSHA K BAILEY	Е	9-13-13	10*21104
N/A	122	951	1/8+	TH EXPLORATION LLC	DONALD E WEST AND MARTHA E WEST	Е.	9-13-13	10*21088
N/A	124	951	1/8+	TH EXPLORATION LLC	THOMAS E DODD AND ANITA M DODD	Е	9-13-13	10*21087
N/A	126	951	1/8+	TH EXPLORATION LLC	MARY D LING	Е	9-13-13	10*21027
N/A	5/6	945	1/8+	TH EXPLORATION LLC	DORIS L MASTERS AND ROY N MASTERS	Е	9-13-13	10*19870
N/A	578	945	1/8+	TH EXPLORATION LLC	SHIRLEY J DUFFY	3	9-13-13	10*19869
N/A	580	945	1/8+	TH EXPLORATION LLC	TERRI J STREAM AND JOHN T STREAM	Е	9-13-13	10*19868
N/A	434	944	1/8+	TH EXPLORATION LLC	DAVID A ROBINSON AND PATRICIA A ROBINSON	E	9-13-13	10*19714
N/A	432	944	1/8+	TH EXPLORATION LLC	BARBARA C LEISHMAN AND DANNY K LEISHMAN	E	9-13-13	10*19675
N/A	337	944	1/8+	TH EXPLORATION LLC	DEBRA SHORT AND RODNEY SHORT	E	9-13-13	10*19674
N/A	314	941	1/8+	TH EXPLORATION LLC	WILLIAM EMERY	E	9-13-13	10*19481
N/A	316	941	1/8+	TH EXPLORATION LLC	ARDETH L PIPER AND PAUL E PIPER	E	9-13-13	10*19475
N/A	318	941	1/8+	TH EXPLORATION LLC	EDGAR ALLEN RICHMOND	E	9-13-13	10*19474
N/A	348	940	1/8+	TH EXPLORATION LLC	HOWARD G AND CLARA J RICHMOND	E	9-13-13	10*19402
N/A	346	940	1/8+	TH EXPLORATION LLC	JOYCE A WILSON AND D MURPHY WILSON	E	9-13-13	10*19401
N/A	221	938	1/8+	TH EXPLORATION LLC	DOROTHY JEAN HUSTON AND KENNETH HUSTON	E	9-13-13	10*18736
N/A	243	938	1/8+	TH EXPLORATION LLC	DIANE E AND DENNIS P FOWLER	E	9-13-13	10*18735
N/A	247	938	1/8+	TH EXPLORATION LLC	KENNETH EMERY AND MARTHA LEMERY	E	9-13-13	10*18734
N/A	245	938	1/8+	TH EXPLORATION LLC	SHERRILL M LEAVERS AND JAMES H LEAVERS	E	9-13-13	10*18732
N/A	373	1019	1/8+	TH EXPLORATION LLC			FISH CREEK	10*23458
N/A	144	949	1/8+	TH EXPLORATION LLC		С	9-14-37	10*19938
N/A	151	949	1/8+	TH EXPLORATION LLC		С	9-14-37	10*19937
N/A	156	944	1/8+	TH EXPLORATION LLC		C	9-14-37	10*19689
N/A	628	937	1/8+	TH EXPLORATION LLC		C	9-14-37	10*18805
N/A	283	929	1/8+	TH EXPLORATION LLC		C	9-14-37	10*18300
N/A	273	929	1/8+	TH EXPLORATION LLC		C	9-14-37	10*18298
N/A	385	937	1/8+	TH EXPLORATION LLC		C	9-14-37	10*47051.219.1
N/A	61	876	1/8+	TH EXPLORATION LLC	THOMAS J FOX	В	9-14-38	10*47051.243.6
N/A	58	876	1/8+	TH EXPLORATION LLC	LOUIS T FOX AND KAREN A FOX	В	9-14-38	10*47051.243.5
N/A	55	876	1/8+	TH EXPLORATION LLC	DAVID E FOX	В	9-14-38	10*47051.243.4
N/A	338	879	1/8+	TH EXPLORATION LLC	MARK H FOX	В	9-14-38	10*47051.243.3
N/A	335	879	1/8+	TH EXPLORATION LLC	PAUL G FOX	В	9-14-38	10*47051.243.2
N/A	332	879	1/8+	TH EXPLORATION LLC		В	9-14-38	10*47051.243.1
N/A	312	874	1/8+	TH EXPLORATION LLC		Þ	9-14-33	10*47051.219.1
Assignment	ok/Page	Deed Book/Page	Royalty	Grantee, Lessee, Etc.	s Grantor, Lessor, Etc.	Tags	Parcel	Lease ID

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Operator's Well No. Knob Creek N - 1HM

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Office of Oil and Gas

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Operator's Well No. Knob Creek N - 1HM

.,,,,	150	207	7/01	IN EXPLONATION LEC	PHYLLIS M RADEK	-	9-13-13.1	10.2221/
N/A	456	964	1/8+	TH EVBLOBATION ITC		, -		1042777
N/A	458	964	1/8+	TH EXPLORATION LLC	STEVEN B MCCI INTOCK	п	9-13-13 1	10*77463
N/A	132	963	1/8+	TH EXPLORATION LLC	JAMES RICHMOND AND CINDY L RICHMOND	F	9-13-13.1	10*22458
N/A	228	962	1/8+	TH EXPLORATION LLC	KEVIN R RICHMOND AND VALERIE L RICHMOND	F	9-13-13.1	10*22378
N/A	226	962	1/8+	TH EXPLORATION LLC	MONTY W BAILEY AND MARTHA E BAILEY	F	9-13-13.1	10*22377
N/A	352	961	1/8+	TH EXPLORATION LLC	VICKI ANN WILLIAMS & WILLIAM J WILLIAMS	F	9-13-13.1	10*22121
N/A	499	953	1/8+	TH EXPLORATION LLC	JAMES S RICHMOND	F	9-13-13.1	10*22119
N/A	354	961	1/8+	TH EXPLORATION LLC	DEBORAH L WROBEL AND GREGORY G WROBEL	F	9-13-13.1	10*22117
N/A	224	962	1/8+	TH EXPLORATION LLC	SYLVIA D WEST	F	9-13-13.1	10*22113
N/A	497	953	1/8+	TH EXPLORATION LLC	OPAL V BUCKMASTER	F	9-13-13.1	10*21983
N/A	30	960	1/8+	TH EXPLORATION LLC	WILLIAM R DODD AND SHIRLEY A DODD	F	9-13-13.1	10*21964
N/A	28	960	1/8+	TH EXPLORATION LLC	LINDA R JANSSEN AND DENNIS D JANSSEN	F	9-13-13.1	10*21963
N/A	13	960	1/8+	TH EXPLORATION LLC	THEODORE F MASLOWSKI AND ANITA MASLOWSKI	F	9-13-13.1	10*21956
N/A	625	959	1/8+	TH EXPLORATION LLC	FIRST PRESBYTERIAN CHURCH OF CLARKSBURG	F	9-13-13.1	10*21838
N/A	128	951	1/8+	TH EXPLORATION LLC	DONALD FURLONG AND LISA K FURLONG	71	9-13-13.1	10*21507
N/A	290	957	1/8+	TH EXPLORATION LLC	DARLENA BRY AND LEE V BRY	F	9-13-13.1	10*21491
N/A	140	951	1/8+	TH EXPLORATION LLC	SANDRA A WHITE	Ŧ	9-13-13.1	10*21108
N/A	135	951	1/8+	TH EXPLORATION LLC	RONALD L WEST	F	9-13-13.1	10*21107
N/A	137	951	1/8+	TH EXPLORATION LLC	THE CALVIN O WILLIAMS & PATSY S WILLIAMS REVOCABLE LIVING TRUST	F	9-13-13.1	10*21105
N/A	131	951	1/8+	TH EXPLORATION LLC	LARRY W BAILEY AND MARSHA K BAILEY	F	9-13-13.1	10*21104
N/A	122	951	1/8+	TH EXPLORATION LLC	DONALD E WEST AND MARTHA E WEST	F	9-13-13.1	10*21088
N/A	124	951	1/8+	TH EXPLORATION LLC	THOMAS E DODD AND ANITA M DODD	F	9-13-13.1	10*21087
N/A	126	951	1/8+	TH EXPLORATION LLC	MARY D LING	F	9-13-13.1	10*21027
N/A	576	945	1/8+	TH EXPLORATION LLC	DORIS L MASTERS AND ROY N MASTERS	F	9-13-13.1	10*19870
N/A	578	945	1/8+	TH EXPLORATION LLC	SHIRLEY J DUFFY	Ŧ	9-13-13.1	10*19869
N/A	580	945	1/8+	TH EXPLORATION LLC	TERRI J STREAM AND JOHN T STREAM	F	9-13-13.1	10*19868
N/A	434	944	1/8+	TH EXPLORATION LLC	DAVID A ROBINSON AND PATRICIA A ROBINSON	F	9-13-13.1	10*19714
N/A	432	944	1/8+	TH EXPLORATION LLC	BARBARA C LEISHMAN AND DANNY K LEISHMAN	П	9-13-13.1	10*19675
N/A	337	944	1/8+	TH EXPLORATION LLC	DEBRA SHORT AND RODNEY SHORT	F	9-13-13.1	10*19674
N/A	314	941	1/8+	TH EXPLORATION LLC	WILLIAM EMERY	F	9-13-13.1	10*19481
N/A	316	941	1/8+	TH EXPLORATION LLC	ARDETH L PIPER AND PAUL E PIPER	F	9-13-13.1	10*19475
N/A	318	941	1/8+	TH EXPLORATION LLC	EDGAR ALLEN RICHMOND	F	9-13-13.1	10*19474
N/A	348	940	1/8+	TH EXPLORATION LLC	HOWARD G AND CLARA J RICHMOND	F	9-13-13.1	10*19402
N/A	346	940	1/8+	TH EXPLORATION LLC	JOYCE A WILSON AND D MURPHY WILSON	F	9-13-13.1	10*19401
N/A	221	938	1/8+	TH EXPLORATION LLC	DOROTHY JEAN HUSTON AND KENNETH HUSTON	Ŧ	9-13-13.1	10*18736
N/A	243	938	1/8+	TH EXPLORATION LLC	DIANE E AND DENNIS P FOWLER	F	9-13-13.1	10*18735
Assignment	ok/Page	Deed Book/Page	Royalty	Grantee, Lessee, Etc.	Grantor, Lessor, Etc.	Tags	Parcel	Lease ID

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Operator's Well No. Knob Creek N - 1HM

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Lease ID	Parcel	Tags	Grantor, Lessor, Etc.	Grantee, Lessee, Etc.	Royalty	Deed Book/Page	(/Page	Assignment
10*22545	9-13-13.1	F	JANICE L MASLOWSKI AND FLOYD F MECHLING	TH EXPLORATION LLC	1/8+	968	9	N/A
10*23140	9-13-13.1	F	MELISSA JENKINS	TH EXPLORATION LLC	1/8+	984	86	N/A
10*23144	9-13-13.1	F	MARGARET A WALTERS	TH EXPLORATION LLC	1/8+	984	84	N/A
10*23145	9-13-13.1	F	WILLIAM BENNETT	TH EXPLORATION LLC	1/8+	984	82	N/A
10*23146	9-13-13.1	П	RETA I GRIFFIN AND MARTIN A GRIFFIN	TH EXPLORATION LLC	1/8+	984	80	N/A
10*23154	9-13-13.1	F	CAROLYN FAY BENNETT	TH EXPLORATION LLC	1/8+	984	78	N/A
10*23188	9-13-13.1	Ŧ	LISA MCMANUS	TH EXPLORATION LLC	1/8+	984	530	N/A
10*23299	9-13-13.1	Ŧ	PATRICIA L BECK	TH EXPLORATION LLC	1/8+	988	19	N/A
10*23312	9-13-13.1	F	DONNA M CARTER	TH EXPLORATION LLC	1/8+	988	17	N/A
10*23559	9-13-13.1	F	ROBERT TOOMBS WRIGHT MONTAGUE BY DAVID C WHITE, ESQ, GUARDIAN AT LITEM	TH EXPLORATION LLC	1/8+	1009	249	N/A
10*23577	9-13-13.1	Ti I	C WHITE, ESQ, GUARDIAN AD LITEM	TH EXPLORATION LLC	1/8+	1009	253	N/A
10*23578	9-13-13.1	п	DUDLEY PORTER THAYER MONTAGUE JR BY DAVID C WHITE, ESQ, GUARDIAN AD LITEM	TH EXPLORATION LLC	1/8+	1009	251	N/A
10*24739	9-13-13.1	Ŧ	RICARDO THOMAS MAYA	TH EXPLORATION LLC	1/8+	1025	611	N/A
10*25442	9-13-13.1	T 1	SARAH BETH PREWITT ET AL	TH EXPLORATION LLC	1/8+	1033	297	N/A
10*25442	9-13-13.1	F	SARAH BETH PREWITT ET AL	TH EXPLORATION LLC	1/8+	1033	297	N/A
10*24858	9-13-12	G	NILA JEAN FROHNAPFEL	TH EXPLORATION LLC	1/8+	1028	119	N/A

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October 1, 2019

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

RE: Knob Creek N-1HM

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 N-1HM well plat. THO has conducted a full title search in the relevant Court House to confirm its ownership under said County Routes and is not currently aware of any recorded document that would suggest an ownership other than THO.

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

Sincerely,

Amy Miller

Permit Specialist – Appalachia Region

Cell 304-376-0111

any will

Email: amiller@tug-hillop.com

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OCT 0 2 2019

WW-6AC (1/12)

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

Date of Notic	ce Certification: 10/01/2019		API No. 47	7- 051 -	
(0.4127-0.2-0.1024)	F P. P. DESCRIPTION OF THE P.		Operator's	Well No. Knob	Creek N-1HM
				Name: Knob Cr	
Notice has I Pursuant to the	been given: ne provisions in West Virginia Code of tract of land as follows:	§ 22-6A, the Operator has pro-	vided the rec	quired parties v	vith the Notice Forms listed
State:	West Virginia	5.000 CC 25.00 CC	Easting:	525,215.39	
County:	Marshall	UTM NAD 83	Northing:	4,402,269.20	
District:	Meade	Public Road Acc		St. Joseph Road	- CR 21
Quadrangle:	Glen Easton 7.5'	Generally used fa		David Lee Frankl	in
Watershed:	Fish Creek (HUC 10)			-	
information r of giving the requirements Virginia Code	ed the owners of the surface described equired by subsections (b) and (c), so surface owner notice of entry to surface owner notice of entry to surface of subsection (b), section sixteen of \$22-6A-11(b), the applicant shall thave been completed by the applicant	ection sixteen of this article; (increase pursuant to subsection of this article were waived in ender proof of and certify to the	i) that the re(a), section writing by	quirement was ten of this arti the surface ov	deemed satisfied as a result cle six-a; or (iii) the notice vner; and Pursuant to West
that the Ope	West Virginia Code § 22-6A, the Operator has properly served the require ECK ALL THAT APPLY		his Notice C	Certification	OOG OFFICE USE ONLY
□ 1. NO	TICE OF SEISMIC ACTIVITY or	■ NOTICE NOT REQUIR SEISMIC ACTIVITY WAS			☐ RECEIVED/ NOT REQUIRED
■ 2. NO	TICE OF ENTRY FOR PLAT SURV	YEY or NO PLAT SURV	EY WAS CO	ONDUCTED	RECEIVED
□ 3. NO	TICE OF INTENT TO DRILL or	NOTICE NOT REQUIRED NOTICE OF ENTRY FOR WAS CONDUCTED or			☐ RECEIVED/ NOT REQUIRED
		☐ WRITTEN WAIVER	BY SURFA	CE OWNER	AUV.
		(PLEASE ATTACH)			
■ 4. NO	TICE OF PLANNED OPERATION				RECEIVED
	TICE OF PLANNED OPERATION BLIC NOTICE				RECEIVED

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.

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Office of Oil and Gas**

WW-6AC (1/12)

Certification of Notice is hereby given:

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

Well Operator: Tug Hill Operating, LLC · Address: 380 Southpointe Boulevard, Plaza II, Suite 200

By: Amy L. Miller Operating Specialist - Appalachia Facsimile: 724-749-8388

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

NOTARY SEAL

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

Notary Public

My Commission Expires

Oil and Gas Privacy Notice:

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

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OCT 0 2 2019

WW-6A (9-13) API NO. 47-OPERATOR WELL NO. Knob Creek N-1HM Well Pad Name: Knob Creek

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

Notice Time Requirement: notice shall be provided no la	ter than the filing date of permit application.
Date of Notice: 9/30/2019 Date Permit Application Filed Notice of:	d; 10/1/2019
☑ PERMIT FOR ANY ☐ CERTIFICATE O	F APPROVAL FOR THE
	N OF AN IMPOUNDMENT OR PIT
Delivery method pursuant to West Virginia Code § 22-	6A-10(b)
☐ PERSONAL ☐ REGISTERED ☑ M	METHOD OF DELIVERY THAT REQUIRES A
	RECEIPT OR SIGNATURE CONFIRMATION
sediment control plan required by section seven of this article the surface of the tract on which the well is or is proposed to oil and gas leasehold being developed by the proposed well we described in the erosion and sediment control plan submitted operator or lessee, in the event the tract of land on which the more coal seams; (4) The owners of record of the surface trace well work, if the surface tract is to be used for the placement, impoundment or pit as described in section nine of this article have a water well, spring or water supply source located with provide water for consumption by humans or domestic animal proposed well work activity is to take place. (c)(1) If more that subsection (b) of this section hold interests in the lands, the approvision of the sheriff required to be maintained pursuant to seprovision of this article to the contrary, notice to a lien holder	except or signature confirmation, copies of the application, the erosion and a part and the well plat to each of the following persons: (1) The owners of record of the located; (2) The owners of record of the surface tract or tracts overlying the work, if the surface tract is to be used for roads or other land disturbance as pursuant to subsection (c), section seven of this article; (3) The coal owner, well proposed to be drilled is located [sic] is known to be underlain by one or of the ortracts overlying the oil and gas leasehold being developed by the proposed construction, enlargement, alteration, repair, removal or abandonment of any e; (5) Any surface owner or water purveyor who is known to the applicant to in one thousand five hundred feet of the center of the well pad which is used to als; and (6) The operator of any natural gas storage field within which the center than three tenants in common or other co-owners of interests described in applicant may serve the documents required upon the person described in the ection eight, article one, chapter eleven-a of this code. (2) Notwithstanding any is not notice to a landowner, unless the lien holder is the landowner. W. Va. also provide the Well Site Safety Plan ("WSSP") to the surface owner and any esting as provided in section 15 of this rule.
☐ Application Notice ☐ WSSP Notice ☐ E&S Plan N	Notice Well Plat Notice is hereby provided to:
☑ SURFACE OWNER(s)	☑ COAL OWNER OR LESSEE
Name: David Lee Franklin	Name: CNX Land Resources, Inc.
Address: 131 Saint Joseph Road	Address: 1000 Consol Energy Drive
Glen Easton, WV 26039 Name:	Canonsburg, PA 15318
Name: Address:	Name:
radios.	Address:
SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: David Lee Franklin	SURFACE OWNER OF WATER WELL
Address: 131 Saint Joseph Road	AND/OR WATER PURVEYOR(s)
Glen Easton, WV 26039	Name: *See attached list
Name:	Address:
Address:	
- CVIDDLOD OND VEDA A	☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
SURFACE OWNER(s) (Impoundments or Pits) Name:	Name:Address:
Address:	
	*Please attach additional forms if necessary Office of Oil and Gas

WW-6A (8-13)

RECEIVED Office of Oil and Gas

OCT 0 2 2019

API NO. 47-OPERATOR WELL NO. Knob Creek N-1HM Well Pad Name: Knob Creek

4705102278

Notice is hereby given:

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

This Notice Shall Include:

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

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

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

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

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

Well Location Restrictions

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

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API NO. 47
OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

Water Well Testing:

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

Water Testing Laboratories:

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

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

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

Written Comment:

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

RECEIVED
Office of Oil and Gas

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

OCT 0 2 2019

WV Department of Environmental Protection

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

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API NO. 47- OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

Time Limits and Methods for Filing Comments.

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

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

Comment Requirements

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

Disclaimer: All comments received will be placed on our web site 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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OCT 0 2 2019

WW-6A (8-13)

4705102278

API NO. 47-OPERATOR WELL NO. Knob Creek N-1HM Well Pad Name: Knob Creek

Notice is hereby gi	ven by:
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Email: amiller@tug-hillop.com

Well Operator: Tug Hill Operating, LLC Telephone: 724-749-8388

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.

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

Subscribed and sworn before me this 30 day of JEPT., 2019

Notary Public

My Commission Expires

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OCT 0 2 2019

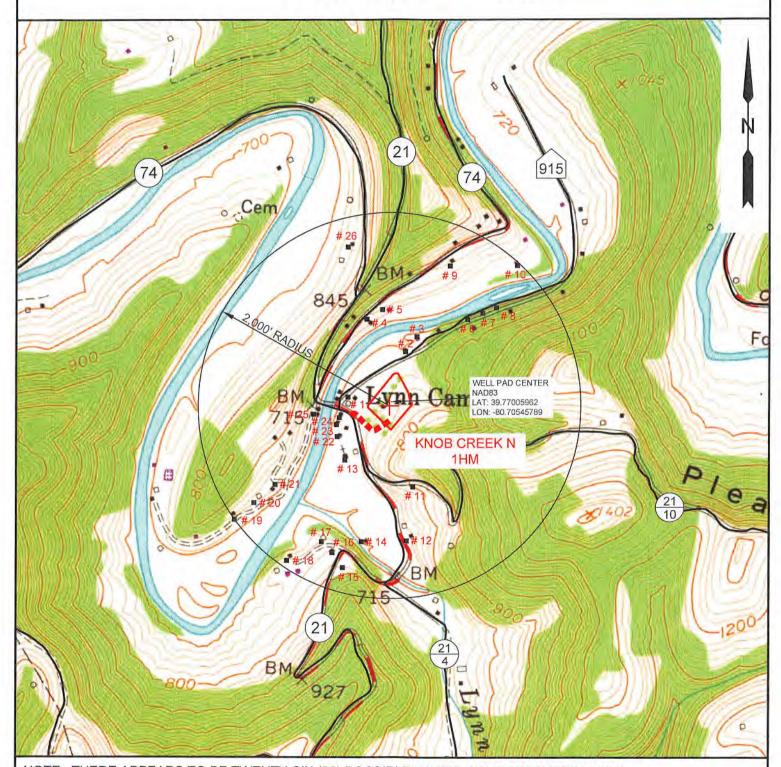
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OCT 0 2 2019

WW-6A

PROPOSED KNOB CREEK N - 1HM

WV Department of SUPPLEMENT PG. 1B Environmental Protection



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



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



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')

WV Department of Environmental Protection

Well:

KNOB CREEK N - 1HM

District:

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

State:

WV

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

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

OCT 0 2 2019

WV Department of Environmental Protection

5761 Saint Joseph Rd.

Proctor, WV 26055

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

5761 Saint Joseph Rd.

Proctor, WV 26055

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House 25 House 26 TM 13 Pcl. 13 TM 13 Pcl. 12 Margaret K. Fox – Life Nila Jean Prohnapfel c/o Paul Fox Phone: None Found Phone: 304-455-3817 (Per Tax Address **Physical Address:** 11975 Fish Creek Rd. - Paul G. Fox) **Physical Address:** Glen Easton, WV 26039 28 Richmond Ln. Tax Address: Glen Easton, WV 26039 Rd. 1 Box 190 Tax Address: Proctor, WV 26055-9703 5761 Saint Joseph Rd. Proctor, WV 26055

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WW-6A3 (1/12) OCT 0 2 2019

Operator Well No. Knob Creek N-1HM

WV Department of

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

						n FORTY-FIVE (45) days prior to
Date of Notic	ce: 2/5/2018	Date of Pla	nned Entry: 2	2/12/2018		
Delivery met	thod pursuant	to West Virginia C	ode § 22-6A-1	0a		
☐ PERSO	NAL 🗆	REGISTERED	■ MET	HOD OF DEL	IVERY THAT RE	QUIRES A
SERVIC		MAIL			NATURE CONFIR	
on to the surfi- but no more t beneath such owner of min and Sediment Secretary, wh enable the sur	ace tract to cond han forty-five d tract that has fil erals underlying t Control Manua tich statement sl rface owner to con	duct any plat survey ays prior to such en led a declaration pure such tract in the coal and the statutes are hall include contact obtain copies from the	s required purs try to: (1) The rsuant to section ounty tax record rules related information, in	suant to this as surface owne on thirty-six, a ds. The notic I to oil and ga	rticle. Such notice s r of such tract; (2) rticle six, chapter t e shall include a sta s exploration and p	shall provide notice of planned entry shall be provided at least seven days to any owner or lessee of coal seams wenty-two of this code; and (3) any attement that copies of the state Erosion roduction may be obtained from the age on the Secretary's web site, to
	eby provided t	0:		_		
■ SURFAC	CE OWNER(s)			■ COA	L OWNER OR LE	SSEE
Name: David Lo	ee Franklin (Pad and A	Access Road)			X Land Resources, Inc.	
	Saint Joseph Road	(_		1000 Consol Energy Drive	
	n Easton, WV 26039		_		Canonsburg, PA 15318	
Name:			_		SD FF OUDJEDIA	
Address:			_		ERAL OWNER(s)	
				Name: Day	vid Lee Franklin	1
Mama					101 0 1 1 1 1 D 1	/
Name:			-		131 Saint Joseph Road	
Name: Address:			_	Address:	Glen Easton, WV 26039	CESSAIV
				Address:		cessary
Notice is he Pursuant to W a plat survey State:				Address: *please attac y given that the Approx. Latit	Glen Easton, WV 26039 h additional forms if ne te undersigned wel ude & Longitude:	cessary I operator is planning entry to conduct 39.7700596; -80.7054579
Notice is he Pursuant to W a plat survey State: County:	Vest Virginia Co on the tract of la			Address: *please attack y given that the Approx. Latit Public Road A	Glen Easton, WV 26039 h additional forms if ne te undersigned wel ude & Longitude:	operator is planning entry to conduct 39.7700596; -80.7054579 St. Joseph Road - County Route 21
Notice is he Pursuant to W a plat survey State: County: District:	Vest Virginia Co on the tract of la West Virginia Marshall Meade			*please attack y given that the Approx, Latit Public Road A Watershed:	Glen Easton, WV 26039 h additional forms if ne the undersigned wel ude & Longitude: Access:	operator is planning entry to conduct 39.7700596; -80.7054579 St. Joseph Road - County Route 21 Fish Creek (HUC 10)
Notice is he Pursuant to W a plat survey State:	Vest Virginia Co on the tract of la West Virginia Marshall			Address: *please attack y given that the Approx. Latit Public Road A	Glen Easton, WV 26039 h additional forms if ne the undersigned wel ude & Longitude: Access:	operator is planning entry to conduct 39.7700596; -80.7054579 St. Joseph Road - County Route 21
Notice is he Pursuant to W a plat survey State: County: District: Quadrangle: Copies of the may be obtain Charleston, W obtained from	West Virginia Coon the tract of lawest Virginia Marshall Meade Glen Easton 7.5' state Erosion and from the Servy 25304 (304) in the Secretary by the state by given by the secretary by the s	and as follows: and Sediment Controcretary, at the WV I -926-0450). Copies by visiting www.de	I Manual and to Department of sof such docur	Address: *please attack y given that the Approx. Latit Public Road A Watershed: Generally use the statutes an Environmentate ments or addit	Glen Easton, WV 26039 h additional forms if ne the undersigned wel ude & Longitude: Access: d farm name: d rules related to o all Protection headq ional information r	39.7700596; -80.7054579 St. Joseph Road - County Route 21 Fish Creek (HUC 10) David Lee Franklin il and gas exploration and production uarters, located at 601 57 th Street, SE, elated to horizontal drilling may be
Notice is he Pursuant to W a plat survey State: County: District: Quadrangle: Copies of the may be obtain Charleston, W obtained from Notice is he	West Virginia Coon the tract of lawest Virginia Marshall Meade Glen Easton 7.5' state Erosion and from the Servy 25304 (304) in the Secretary by the state by given by the secretary by the s	and as follows: and Sediment Controcretary, at the WV I -926-0450). Copies by visiting www.de	I Manual and to Department of sof such docur	*please attack *please attack y given that the Approx. Latite Public Road A Watershed: Generally use the statutes an Environmentate ments or additand-gas/pages/	Glen Easton, WV 26039 h additional forms if ne undersigned wel ude & Longitude: Access: d farm name: d rules related to oul Protection headquional information related to related to related to each protection headquional information related to related to the each protection headquional information related to the each protection headquional	39.7700596; -80.7054579 St. Joseph Road - County Route 21 Fish Creek (HUC 10) David Lee Franklin ill and gas exploration and production parters, located at 601 57 th Street, SE, elated to horizontal drilling may be

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.

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

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

Date of Noti	Requirement: notice shall be: 10/01/2019 Da	ate Permit Ap	plication Filed: 10/	date of permit	application.
Delivery me	hod pursuant to West Virg	ginia Code § 22	2-6A-16(c)		
■ CERTI	FIED MAIL	П	HAND		
	RN RECEIPT REQUESTED		DELIVERY		
return receipt the planned of required to be drilling of a damages to tl (d) The notic of notice. Notice is her	requested or hand delivery, operation. The notice required provided by subsection (b), horizontal well; and (3) A particle surface affected by oil and less required by this section should be provided to the SURFA	give the surface red by this subsection ten of proposed surface I gas operations all be given to ACE OWNER	e owner whose land osection shall incluse this article to a surface use and compen- to the extent the dather the surface owner and	I will be used for de: (1) A copy ace owner whos sation agreemen amages are comp	cation, an operator shall, by certified mail or the drilling of a horizontal well notice of of this code section; (2) The information se land will be used in conjunction with the at containing an offer of compensation for pensable under article six-b of this chapter, sted in the records of the sheriff at the time
at the addres	s listed in the records of the	sheriff at the ti	me of notice):		
A CONTRACTOR OF THE PARTY OF TH	e Franklin		Manuel		
Name: David Le		/_	Name:		
Name: David Le Address: 131 Glen Easton, WV Notice is her	Saint Joseph Road 26039 eby given:	16(c) notice is	Addres		well onerator has developed a planned
Name: David Le Address: 131: Gien Easton, WV Notice is her Pursuant to V operation on State: County:	Saint Joseph Road 26039 eby given:		Addres hereby given that the dilling a horizonta UTM NAD 8	ne undersigned value on the tra Easting: Northing:	well operator has developed a planned act of land as follows: 525,215.39 4,402,269.20
Name: David Le Address: 131: Glen Easton, WV Notice is her Pursuant to V operation on State: County: District:	eby given: /est Virginia Code § 22-6A- the surface owner's land for West Virginia Marshall Meade		Addres hereby given that the drilling a horizonta UTM NAD 8	ne undersigned value on the tra Easting: Northing: Access:	act of land as follows: 525,215.39 4,402,269.20 St. Joseph Road - CR 21
Name: David Le Address: 131: Glen Easton, WV Notice is her Pursuant to V operation on State: County:	Saint Joseph Road 26039 eby given: /est Virginia Code § 22-6A- the surface owner's land for West Virginia Marshall		Addres hereby given that the drilling a horizonta UTM NAD 8	ne undersigned value on the tra Easting: Northing:	act of land as follows: 525,215.39 4,402,269.20
Name: David Le Address: 131: Glen Easton, WV Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice S Pursuant to V to be provide horizontal we surface affect information r	eby given: /est Virginia Code § 22-6A- the surface owner's land for West Virginia Marshall Meade Glen Easton 7.5' Fish Creek (HUC 10) Shall Include: /est Virginia Code § 22-6A- db y W. Va. Code § 22-6A- db y W. Va. Code § 22-6A- db y oil and gas operation elated to horizontal drilling located at 601 57th Street,	16(c), this noti A-10(b) to a suce use and coms to the extent may be obtain	Addres thereby given that the drilling a horizontal UTM NAD 8 Public Road Generally use the damages are content of the damages	ne undersigned value on the tra Easting: Northing: Access: ad farm name: A copy of this along and army, at the WV	act of land as follows: 525,215.39 4,402,269.20 St. Joseph Road - CR 21
Name: David Le Address: 131: Glen Easton, WV Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice S Pursuant to V to be provide horizontal we surface affect information in headquarters,	eby given: /est Virginia Code § 22-6A- the surface owner's land for West Virginia Marshall Meade Glen Easton 7.5' Fish Creek (HUC 10) Shall Include: /est Virginia Code § 22-6A- ed by W. Va. Code § 22-6A- ed by oil and gas operation. elated to horizontal drilling located at 601 57 th Street, iault.aspx.	16(c), this noti A-10(b) to a suce use and coms to the extent may be obtain	Addres thereby given that the drilling a horizontal UTM NAD 8 Public Road Generally use the damages are content of the damages	ne undersigned value on the tra Easting: Northing: Access: ed farm name: OA copy of this estand will be under the containing and compensable underly, at the WV (304-926-0450)	act of land as follows: 525,215.39 4,402,269.20 St. Joseph Road - CR 21 David Lee Franklin code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection
Name: David Le Address: 131: Glen Easton, WV Notice is her Pursuant to V operation on State: County: District: Quadrangle: Watershed: This Notice S Pursuant to V to be provide horizontal we surface affect information r headquarters, gas/pages/def	eby given: /est Virginia Code § 22-6A- the surface owner's land for West Virginia Marshall Meade Glen Easton 7.5' Fish Creek (HUC 10) Shall Include: /est Virginia Code § 22-6A- ed by W. Va. Code § 22-6A- ell; and (3) A proposed surfaced by oil and gas operation elated to horizontal drilling located at 601 57th Street, fault.aspx.	16(c), this noti A-10(b) to a suce use and coms to the extent may be obtain	Addres hereby given that the drilling a horizonta UTM NAD 8 Public Road Generally use ce shall include: (1) Inface owner whose appensation agreeme the damages are content from the Secretion, WV 25304	ne undersigned value on the tra Easting: Northing: Access: ed farm name: OA copy of this estand will be under the containing and compensable underly, at the WV (304-926-0450)	act of land as follows: 525,215.39 4,402,269.20 St. Joseph Road - CR 21 David Lee Franklin code section; (2) The information required used in conjunction with the drilling of an offer of compensation for damages to the ler article six-b of this chapter. Additional Department of Environmental Protection or by visiting www.dep.wv.gov/oil-and-ulevard, Plaza II, Suite 200

Oil and Gas Privacy Notice:

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

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The well operator, Tug Hill Operating, LLC

API NO. 47-OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

	erator, _Tug Hill Operating, LLC be advised that well work permits				e of West Virginia to	conduct oil or gas well
Pursuant to Vany existing located within larger used to dwellings or provided in sarticle was proby written exclerk of the color of the	on Restrictions West Virginia Code § 22-6A-12(a) water well or developed spring us a six hundred twenty-five feet of a o house or shelter dairy cattle or agricultural buildings that existed ection ten of this article or a notice covided, whichever occurs first, and onsent of the surface owner transpounty commission for the county he secretary from these distance re to be employed during well site come department requires to ensure the ance, bonding and indemnification,	sed for human an occupied dw poultry husbar on the date a n of intent to drid to any dwellimitted to the de in which such estrictions upon construction, dril a safety and pro	or domestic anim elling structure, o oddry. This limita totice to the surfactill a horizontal we ng under construct epartment and receptroperty is locat submission of a pilling and operatio tection of affected	al consum r a buildir tion is ap se owner of ll as provi- tion prior orded in the ed. Further lan which ns. The values	nption. The center of ag two thousand five opplicable to those we of planned entry for ided in subsection (b) to that date. This lift the real property recurrence, the well open in identifies the suffic variance, if granted,	f well pads may not be hundred square feet or ells, developed springs, surveying or staking as), section sixteen of this mitation may be waived ords maintained by the rator may be granted a ient measures, facilities shall include terms and
merade msar	ance, bonding and indentiffication,		AIVER	S.		
provisions lis WW-6A and	Antomyst-Fuel, THE September, LLC, hereby state that ted above, and that I have received attachments consisting of pages on the well plat, all for proposed well West Virginia	t I have read the d copies of a No ne (1) through _ l work on the tr	e Instructions to P stice of Applicatio , incl	n, an Appi uding the ows:	lication for a Well W	ork Permit on Form
County:	Marshall		UTM NAD 83 No	_	4,402,269.20	
District:	Meade		Public Road Acce	-	St. Joseph Road - County	Route 21
Quadrangle:	Glen Easton 7.5'		Generally used fa	rm name:	David Lee Franklin	
Watershed:	Fish Creek (HUC-10) that I have no objection to the plan	nned work dose	wihad in these was	ouiala au	d I have no altimated	No. of the Contract of the Con
issued on tho	se materials and I therefore waive	all well site rest	rictions listed und	er West V	Virginia Code 8 22-6	to a permit being
*Please check	RESTRICTIONS BEING WAI call that apply	VED	FOR Signa	EXECUT	TION BY A NATU	
LI EXISTI	NG WATER WELLS		Date:			
□ DEVEL	OPED SPRINGS		Comp	any: TH Exp	TION BY A CORPO ploration, LLC as Attorney-in-Far	
DWELI	LINGS			louglas L. Def		
□ AGRICI	JLTURAL BUILDINGS		Signa	tomey-in-Fac	Dur ZAI	
_ none	DETORALD DOLLDRAGS		Date:		12019	
Well Operato	r; Tug Hill Operating, LLC		Signature:	-		
By: David G. Del			Telephone: 7		ly and the second	
Its: Land Team L	ead		_			
Chester / Pine My Comm	IWEALTH OF PENNSYLVANIA NOTARRY SEAL Arthur West IV, Notary Public TWP., Allegheny County nission Expires Feb. 10, 2020 NSYLVANIA ASSOCIATION OF NOTARIES		(K	W	day of St	Notary Public
Oil and Gas P		My Comm	ission Expires	1-0	02020	
The Office of (personal inform or regulatory re	oil and Gas processes your personal in nation may be disclosed to other State equirements, including Freedom of In ions about our use or your personal infi	agencies or third formation Act re	I parties in the norm	al course o	of business or as needed priately secure your per	to comply with statutory

RECEIVED Office of Oil and Gas

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 Virguin:

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 MARY, 2018.

My commission expires: Jay 18,2022

(NOTARY SEAL/STAMP REQUIRED)

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

Notary Public for the aforesaid County and/or State

RECEIVED Office of Oil and Gas

OCT **02** 2019

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

This Instrument Prepared By:

Moundsville, WV 26041

API NO. 47OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

The well ope work. Please	rator, _Tug Hill Operating, LLC be advised that well work permits	is applying for a perm	nit from the State (24) months.	of West Virginia to co	onduct oil or gas well
	**************************************	eratural contraction contraction			
Pursuant to V any existing of located within larger used to dwellings or a provided in so article was proby written co- clerk of the co- variance by the or practices to conditions the	n Restrictions Vest Virginia Code § 22-6A-12(a water well or developed spring u is six hundred twenty-five feet of house or shelter dairy cattle or agricultural buildings that existed action ten of this article or a notic ovided, whichever occurs first, ar insent of the surface owner trans- county commission for the county the secretary from these distance in the be employed during well site of the department requires to ensure the lance, bonding and indemnification	ised for human or domestican occupied dwelling struct poultry husbandry. This is on the date a notice to the e of intent to drill a horizon and to any dwelling under committed to the department at y in which such property is estrictions upon submission construction, drilling and of e safety and protection of a	c animal consumpture, or a building limitation is application and the surface owner of the transfer of the surface owner of the transfer of th	ption. The center of a g two thousand five holicable to those well f planned entry for su led in subsection (b), so that date. This limi he real property recor- more, the well opera identifies the sufficie ariance, if granted, sh	well pads may not be undred square feet or s, developed springs, rveying or staking as section sixteen of this tation may be waived ds maintained by the tor may be granted a and measures, facilities all include terms and
		WAIVE			
T Charles Street	Assemble Fact, TH Expersion, LLC, hereby state that			TO SECURE OF THE SECURE OF	
WW-6A and required, and State: County: District: Quadrangle: Watershed:	ted above, and that I have received attachments consisting of pages of the well plat, all for proposed well west Virginia. Marshall Meade Glen Easton 7.5' Fish Creek (HUC-10)	ne (1) through Il work on the tract of land	_, including the e as follows: 0 83 Easting: 0 83 Northing: d Access: used farm name:	rosion and sediment of 525,215.39 4,402,269.20 St. Joseph Road - County Ro David Lee Franklin	ontrol plan, if
I further state	that I have no objection to the pla	inned work described in the	ese materials, and	I have no objection to	a permit being
issued on thos	se materials and I therefore waive	all well site restrictions list			
	all that apply	IVED	Signature:	ION BY A NATURA	AL PERSON
☐ EXISTIN	NG WATER WELLS		Print Name: Date:		
□ DEVEL	OPED SPRINGS		FOR EXECUT	ION BY A CORPOI oration, LLC as Attorney-in-Fact for	
DWELI	LINGS		By: Douglas L. DeM		
			Its: Attorney-in-Fact		
☐ AGRICU	JLTURAL BUILDINGS		Signature:	WILLAMS	
				92019	
	r: Tug Hill Operating, LLC		ure:	-	
By: David G. DeL Its: Land Team L		Telepl	none: 724-749-8388		
Its: Land Team L	ead				
Chester A	WEASTHA DE REMESYLVANIA NOTARIAL SEAL THE West IV. Notary Public Twp., Allegheny County ission Expires Feb. 10, 2020	Subscribed and sworn) m	day of Se	ptenlar 2019 Notary Public
MEMBER PENN	SYLVANIA-ASSOCIATION OF NOTACIFO	My Commission Expi	res 7 - 10	2010	
The Office of O personal inform or regulatory re	PWAY KASEC ATION OF NOTARIES bill and Gas processes your personal i nation may be disclosed to other State equirements, including Freedom of It ons about our use or your personal in	e agencies or third parties in the agencies or third parties. Our	ne normal course of office will appropri	business or as needed to iately secure your person	nal information. If you

RECEIVED Office of Oil and Gas

4705102278

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

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

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

STATE OF West Virgues:

County of Macshall to-wit:

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

Given under my hand this 29th day of VION

, 2018

My commission expires: <u>Jan 18</u> 2002

(NOTARY SEAL/STAMP REQUIRED)

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

Notary Public for the aforesaid County and/or State

Would for Franklin.

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OCT 0 2 2019

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

This Instrument Prepared By:

Moundsville. WV 26041

API NO, 47-OPERATOR WELL NO, Knob Creek N-1HM Well Pad Name: Knob Creek

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

work. Please be advised that well work permits are valid for twenty-	
Well Location Restrictions Pursuant to West Virginia Code § 22-6A-12(a), Wells may not be any existing water well or developed spring used for human or dor located within six hundred twenty-five feet of an occupied dwelling larger used to house or shelter dairy cattle or poultry husbandry. dwellings or agricultural buildings that existed on the date a notice provided in section ten of this article or a notice of intent to drill a he article was provided, whichever occurs first, and to any dwelling unby written consent of the surface owner transmitted to the departmeter of the county commission for the county in which such proparaince by the secretary from these distance restrictions upon subm or practices to be employed during well site construction, drilling a conditions the department requires to ensure the safety and protection include insurance, bonding and indemnification, as well as technical	mestic animal consumption. The center of well pads may not be structure, or a building two thousand five hundred square feet or This limitation is applicable to those wells, developed springs, to the surface owner of planned entry for surveying or staking as prizontal well as provided in subsection (b), section sixteen of this der construction prior to that date. This limitation may be waived tent and recorded in the real property records maintained by the erty is located. Furthermore, the well operator may be granted a ission of a plan which identifies the sufficient measures, facilities and operations. The variance, if granted, shall include terms and to of affected persons and property. The terms and conditions may
WAI	
I. Line Line Franche, by my Antomyria-Franc Telephotenian, Line, hereby state that I have read the Instruments is above, and that I have received copies of a Notice of WW-6A and attachments consisting of pages one (1) through required, and the well plat, all for proposed well work on the tract of State: West Virginia UTM	f Application, an Application for a Well Work Permit on Form , including the erosion and sediment control plan, if
	NAD 83 Northing: 4,402,269.20
	Road Access: St. Joseph Road - County Route 21
Quadrangle: Glen Easton 7.5' Gener	ally used farm name: David Lee Franklin
Watershed: Fish Creek (HUC-10) I further state that I have no objection to the planned work described issued on those materials and I therefore waive all well site restriction WELL SITE RESTRICTIONS BEING WAIVED	시간 문제 기계를 받아 있었다. 일반 경우가 되는 경기가 있는 경우가 되었다. 그렇게 되었다. 얼마나의 맛있다. 그렇게 하는 것이 그렇게 하는 것이 그렇게 되었다.
*Please check all that apply	Signature: Print Name:
☐ EXISTING WATER WELLS	Date:
☐ DEVELOPED SPRINGS	FOR EXECUTION BY A CORPORATION, ETC. Company: TH Exploration, LLC as Attorney-in-Fact for Linda Lee Franklin
■ DWELLINGS	By: Douglas L. DeMartino
T . CONCLUSTION AND DESIGNATION	Its: Attorney-in-Fact
☐ AGRICULTURAL BUILDINGS	Signature: Nul XOOF
W 11 0	132/636
Well Operator: Tug Hill Operating, LLC By: David G. DeLallo	Signature: Telephone: 724-749-8388
Its: Land Team Lead	receptione. 12-170-000
COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Chester Arthur West IV, Notary Public	swom before me this 30h day of September 7019
Pine Twp., Allegheny County My Commission Expires Feb. 10, 2020 MEMBER. PENNSYLVANIA ASSOCIATION OF NOTARIES My Commission	Notary Public Public 2-10-7020
Oil and Gas Privacy Notice:	
The Office of Oil and Gas processes your personal information, such as nar personal information may be disclosed to other State agencies or third partir or regulatory requirements, including Freedom of Information Act requests	es in the normal course of business or as needed to comply with statutory

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The well operator, Tug Hill Operating, LLC

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

API NO. 47OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

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

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 Fax by my Abstracy-be-Fact Th Emproyage, U.S., hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form WW-6A and attachments consisting of pages one (1) through , including the erosion and sediment control plan, if required, and the well plat, all for proposed well work on the tract of land as follows: UTM NAD 83 Easting: West Virginia State: 525.215.39 UTM NAD 83 Northing: County: Marshall 4,402,269.20 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 FOR EXECUTION BY A NATURAL PERSON *Please check all that apply Signature: Print Name: ☐ EXISTING WATER WELLS Date: FOR EXECUTION BY A CORPORATION, ETC. □ DEVELOPED SPRINGS Company: TH Exploration, LLC By: Douglas L. DeMartino DWELLINGS Its: Attorney-in-Fac ☐ AGRICULTURAL BUILDINGS Signature: Date: 13012019 Well Operator: Tug Hill Operating, LLC Signatures 3 By: David G. DeLallo Telephone: 724-749-8388 Its: Land Team Lead
COMMONVEALTH OF PENNSYLVANIA NOTARIAL SEAL Sean Cotter, Notary Public City of Phicourgh Allegheny County My Commission Expires Oct. 12, 2019 Subscribed and sw Notary Public My Commission Expires Oil and Gas Privacy Notice: The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacy officer@wv.gov.

> RECEIVED Office of Oil and Gas

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

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

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

Nun Gran

STATE OF West Vivainia

County of Marshau

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

Given under my hand this day of Mark

My commission expires: August 30, 2423

(NOTARY SEAL/STAMP REQUIRED)

Official Seal
Notary Public, State Of Wess W.
Mary M.

Official Seal
Notary Public, State Of West Virginia
Mary M Aston
514 Seventh Street
Moundsville WV 26041
My commission expires August 30, 2023

Notary Public for the aforesaid County and/or State

RECEIVED Office of Oil and Gas

OCT 02 2019

API NO. 47-___
OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

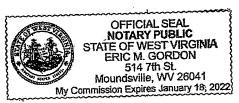
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS WELL LOCATION RESTRICTION WAIVER

	erator, Tug Hill Operating, LLC be advised that well work permits a				of West Virginia to conduct oil or gas w	rell
Pursuant to V any existing located within larger used to dwellings or provided in so article was pr by written co- clerk of the co- variance by the or practices to conditions the	water well or developed spring use n six hundred twenty-five feet of an o house or shelter dairy cattle or p agricultural buildings that existed of ection ten of this article or a notice of rovided, whichever occurs first, and onsent of the surface owner transmic county commission for the county is the secretary from these distance res o be employed during well site cor	and for human a occupied do coultry huse in the date a of intent to of to any dwel inted to the in which su- trictions upon astruction, do safety and pi	n or domestic animal welling structure, or bandry. This limitate a notice to the surface drill a horizontal wellling under construct department and record property is locate on submission of a partilling and operation rotection of affected	al consum a building ion is appeaded on the las provided ion prior of orded in the d. Further lan which as. The v persons a	adred fifty feet measured horizontally from the prior. The center of well pads may not ag two thousand five hundred square feet plicable to those wells, developed sprin of planned entry for surveying or staking ded in subsection (b), section sixteen of to that date. This limitation may be waith the real property records maintained by the remaining the well operator may be granted identifies the sufficient measures, facility arriance, if granted, shall include terms a and property. The terms and conditions in	be or gs, as his ved the d a ties
			AIVER			
provisions lis WW-6A and	ted above, and that I have received	copies of a N (1) through	Notice of Application	n, an Appl ding the e ws:	med on Page WW-6A and the associated lication for a Well Work Permit on Form erosion and sediment control plan, if	
County:	Marshali	_	UTM NAD 83 Pas UTM NAD 83 No	-	4,402,269.20	-
District:	Meade		Public Road Acces		St. Joseph Road - County Route 21	-
Quadrangle:	Glen Easton 7.5°		Generally used far			
issued on tho	se materials and I therefore waive al	ll well site re	estrictions listed und	er West V		
	RESTRICTIONS BEING WAIV call that apply	ED	Signar	ture:	TION BY A NATURAL PERSON	
☐ EXISTI	NG WATER WELLS		Date:	Name:		1
□ DEVEL	OPED SPRINGS		FOR	EXECUT	TION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox	
DWELI	LINGS		By; D	ouglas L. Del	Martino	
-				lorney-in-Fact		
LI AGRICI	JLTURAL BUILDINGS		Signat	ture:	west I Do F	
Wall Operato	Tug Hill Operating, LLC		Date:	7/30	12019	
By: David G. Del			Signature: Telephone: 7	24-749-8388		
Its: Land Team L	ead		_ Torophone	27110 0000		•
City	ONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Sean Cotter, Notary Public of Pittsburgh, Aliegheny County mmission Expires Oct. 12, 2019		nmission Expires	5	30 day of September 2 Notary Public	2019
The Office of o personal inform or regulatory re	Oil and Gas processes your personal intended in the nation may be disclosed to other State a	gencies or the ormation Act	and parties in the normal requests. Our office v	al course of vill appropri	te number, as part of our regulatory duties. Y f business or as needed to comply with statut riately secure your personal information. If y officer at depprivacyofficer@wv.gov.	OTV

RECEIVED Office of Oil and Gas

4705102278

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. Aquis 1, 743.24. (SEAL)
STATE OF West Virginin:
COUNTY OF MAISHALL , to-wit:
The foregoing instrument was acknowledged before me this 24 day of Marin, 2018, by Louis T. Fox.
Given under my hand this 24th day of March, 2018.
Given under my hand this 24th day of March, 2018. My commission expires: 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 0 2 2019

API NO. 47OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

	rator, Tog HIII Operating, LLC be advised that well work permits a	is applying for a perm re valid for twenty-four (it from the State 24) months.	of West Virginia to conduct oil or gas well
Pursuant to V any existing v located within larger used to dwellings or a provided in starticle was pr by written co clerk of the or practices to conditions the	water well or developed spring use in six hundred twenty-five feet of an io house or shelter dairy cattle or p agricultural buildings that existed of ection ten of this article or a notice of rovided, whichever occurs first, and bussent of the surface owner transmit county commission for the county is the secretary from these distance resion to be employed during well site con	od for human or domestic occupied dwelling struc- poultry husbandry. This in the date a notice to the of intent to drill a horizon to any dwelling under co- titled to the department a in which such property is trictions upon submission astruction, drilling and op- safety and protection of a	c animal consum ture, or a building limitation is app surface owner of tal well as provice and recorded in the s located. Further to of a plan which perations. The veriffected persons as	dred fifty feet measured horizontally from ption. The center of well pads may not be g two thousand five hundred square feet or plicable to those wells, developed springs, if planned entry for surveying or staking as ded in subsection (b), section sixteen of this to that date. This limitation may be waived he real property records maintained by the thronge, the well operator may be granted a identifies the sufficient measures, facilities ariance, if granted, shall include terms and and property. The terms and conditions may
		WAIVE	R	
provisions list WW-6A and	ted above, and that I have received attachments consisting of pages one the well plat, all for proposed well west Virginia	I have read the Instruction copies of a Notice of App (1) through work on the tract of land	ns to Persons Nar lication, an Appli , including the e	ned on Page WW-6A and the associated ication for a Well Work Permit on Form erosion and sediment control plan, if
County:	Marshall		83 Northing:	4,402,269.20
District:	Meade	Public Roa		St. Joseph Road - County Route 21
Quadrangle:	Glen Easton 7.5'	Generally 1	ised farm name:	David Lee Franklin
Watershed:	Fish Creek (HUC-10)			
I further state	that I have no objection to the plans	ned work described in the	se materials, and	I have no objection to a permit being
issued on thos	se materials and I therefore waive al	I well site restrictions list	ed under West V	irginia Code § 22-6A-12(a).
	RESTRICTIONS BEING WAIV			TON BY A NATURAL PERSON
*Please check	c all that apply	1227	Signature:	
D EVICTO	NO WATER WELLS		Print Name:	
L EVISITI	NG WATER WELLS		Date:	
☐ DEVEL	OPED SPRINGS	1		TION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Mark H. Fox
DWELL	LINGS		By: Douglas L. DeM	fartino
			Its: Attomey-in-Fact	1
☐ AGRICU	JLTURAL BUILDINGS		Signature:	2012019
Well Operator	r: Tug Hill Operating, LLC	Signat	ure:	
By; David G. DeL	allo		ione: 724-749-8388	
Its: Land Team L	ead			
COMMON	WEALTH OF PENNSYLVANIA	1		
Sei City of I My Comr	NOTARIAL SEAL an Cotter Notery Public Pittsburgh, Allegheny County mission Expires Oct. 12, 2019	Subscribed and swor	before me this_	30 day of September Notary Public
		M. Committed and	in I	4/2014
Oil and Gas P	rivaev Notice:	My Commission Expi	res folla	LI du 17
The Office of O personal inform or regulatory re	Oil and Gas processes your personal infi nation may be disclosed to other State a	gencies or third parties in the formation Act requests. Our	e normal course of office will appropr	e number, as part of our regulatory duties. Your f business or as needed to comply with statutory riately secure your personal information. If you fficer at depprivaevofficer@wv.gov.

RECEIVED Office of Oil and Gas

4705102278

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 MACS MALL, to-wit:

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

MAIK H. Fox

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

My commission expires: Jan 18 2002

(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 0 2 2019

API NO. 47OPERATOR WELL NO. Knob Creek N-1HM
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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FOR EXECU	
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Print Name:	
Date:	
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	xploration, LLC as Attorney-in-Fact for Mary A. Fox
By: Douglas L. De	A STATE OF THE PARTY OF THE PAR
Its: Attorney-in-Fac	
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	72014
Telephone: 124-745-6566	
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	70 - 1 1
ed and sworn before me this_	30 day of September 2
d la	
	Notary Public
1	1
mission Expires 10/13	1/2019
. 7. 70. 1	
sh as name address and all t	ne number, as part of our regulatory duties. Your
as name, address and telephor	를 하는 사람들은 사용하는 사람들이 보면 하면 보다 있다. 그런 사용하는 사용하는 사용하는 사용하는 것이 되었다. 그런 사용하는 사용하는 사용하는 사용하는 사용하는 사용하는 사용하는 사용하는
ird parties in the normal course of	of business or as needed to comply with statutory priately secure your personal information. If you
	Signature Telephone: 724-749-8388 ed and sworn refore me this mission Expires that as name, address and telephone

RECEIVED Office of Oil and Gas

OCT 0 2 2019

4705102278

That I, Mary A. Fox , hereby make, name and appoint, Tug Hill Operating,
LLC, its successors and assigns, by and through its officers, agents or employees to be my limited power of
attorney, for the sole and specific purpose of executing Well Location Restriction Waivers(s) waiving all well
site restrictions listed under West Virginia Code 22-6A-12(a) for the Knob Creek Well Pad situate in Meade
District, Marshall County, West Virginia, located on Tax Map 14, Parcel 33 and depicted on the attached
Exhibit A. Said waivers shall be of the type shown on the attached Exhibit B.
I the said Macy A. Fox hereby declare that acts done by my said attorney for said
specific and sole purpose shall be as good, valid and effective, to all intents and purposes whatsoever, as if
the same had been made or done by me, and I hereby undertake to ratify whatsoever my attorney shall
lawfully do or cause to be done, by virtue of these presents.
I further direct this Limited Power of Attorney shall be good and valid until a revocation thereof has
been duly executed by the undersigned.
Mary a De (SEAL)
$oldsymbol{U}$
STATE OF West Virginia:
STATE OF West Virginia: COUNTY OF MAISHALL to-wit:
The foregoing instrument was acknowledged before me this 30 day of March, 2018, by
Mary A. Fax
Given under my hand this 30th day of March, 2018.
Given under my hand this 30f4 day of March, 2018. My commission expires: Jan (8, 2022
(NOTARY SEAL/STAMP REQUIRED)

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

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 0 2 2019

API NO. 47OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

WELL LOCATION RESTRICTION WAIVER

	erator, _Tug Hill Operating, LLC be advised that well work permits as			of West Virginia to conduct oil or gas well
Pursuant to Vany existing located within larger used to dwellings or provided in sarticle was proposed to the clerk of the countries of the conditions the conditions the conditions the same part of the conditions the conditions the same provided in the conditions the conditio	water well or developed spring user in six hundred twenty-five feet of an oo house or shelter dairy cattle or pagricultural buildings that existed or ection ten of this article or a notice or ovoided, whichever occurs first, and tronsent of the surface owner transmit county commission for the county in the secretary from these distance rest to be employed during well site con-	d for human or domes occupied dwelling structure outry husbandry. The the date a notice to the fintent to drill a horizate any dwelling under to the department in which such property rictions upon submissistruction, drilling and afety and protection of	tic animal consum- icture, or a building is limitation is applied in the surface owner of contal well as provide construction prior and recorded in the is located. Further on of a plan which operations. The vaffected persons a	adred fifty feet measured horizontally from ption. The center of well pads may not be g two thousand five hundred square feet or plicable to those wells, developed springs, of planned entry for surveying or staking as ded in subsection (b), section sixteen of this to that date. This limitation may be waived he real property records maintained by the rmore, the well operator may be granted a identifies the sufficient measures, facilities ariance, if granted, shall include terms and nd property. The terms and conditions may
meteor men	and the state of t	WAIVI		
provisions lis WW-6A and required, and State: County:	ted above, and that I have received c attachments consisting of pages one the well plat, all for proposed well w West Virginia Marshall	have read the Instruction opies of a Notice of Ap (1) through vork on the tract of land UTM NA UTM NA	ons to Persons Nar oplication, an Appl , including the ed d as follows: D 83 Easting: D 83 Northing:	med on Page WW-6A and the associated ication for a Well Work Permit on Form erosion and sediment control plan, if 525,215.39 4.402,269.20
District:	Meade		ad Access:	St. Joseph Road - County Route 21
Quadrangle: Watershed:	Glen Easton 7.5' Fish Creek (HUC-10)	Generally	used farm name:	David Lee Franklin
I further state issued on tho WELL SITE		well site restrictions li	FOR EXECUT	I have no objection to a permit being Virginia Code § 22-6A-12(a).
	Control of Superior Advisory		Signature: Print Name:	
☐ EXISTI	NG WATER WELLS		Date:	
□ DEVEL	OPED SPRINGS		FOR EXECUT	TION BY A CORPORATION, ETC.
DWELI	LINGS		By: Douglas L. DeM	
-			Its: Attorney-in-Fact	
□ AGRICU	JLTURAL BUILDINGS		Signature:	lus Zach <
Wall Opens	Too kill Occasion 11.0	0:	Date:	130/1014
By: David G. Del	T: Tug Hill Operating, LLC		ature 724 778 8388	
Its: Land Team L		1616	phone: 724-749-8388	
COMMOI Sec City of My Com Oil and Gas P Dersonal inform or regulatory n	NVÀGALTAR DISPENINSYLVANIA NOTARIAL SEAL ean Cotter, Notary Public Pittsburgh, Allegheny County mission Expires Oct. 12, 2019 rivacy Notice: Oil and Gas processes your personal info nation may be disclosed to other State as	My Commission Ex-	pires tol 2	Notary Public If your found in the statutory duties in the statutory relately secure your personal information. If you officer at depprivacyofficer@wv.gov.

RECEIVED Office of Oil and Gas

LIMITED POWER OF ATTORNEY 4 7 0 5 1 0 2 2 7 8

That I, Poul 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 Poul 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 St. Fest 3-24-18 (SEAL)
STATE OF West Virginia:
STATE OF West Virginia: COUNTY OF Marshall to-wit:
STATE OF West Virginia: COUNTY OF Marshall to-wit: The foregoing instrument was acknowledged before me this to-day of Marshall 2018, by
The foregoing instrument was acknowledged before me this display of Marin, 2018, by
The foregoing instrument was acknowledged before me this day of Mark, 2018, by
The foregoing instrument was acknowledged before me this display of Marin, 2018, by

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

API NO. 47-___OPERATOR WELL NO. Knob Creek N-1HM Well Pad Name: Knob Creek

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

WELL LOCATION RESTRICTION WAIVER

	rator, Tug Hill Operating, LLC be advised that well work permits			of West Virginia to conduct oil or gas well
Pursuant to Wany existing valued within larger used to dwellings or a provided in searticle was proby written coclerk of the covariance by the practices to conditions the	water well or developed spring us a six hundred twenty-five feet of a b house or shelter dairy cattle or agricultural buildings that existed action ten of this article or a notice ovided, whichever occurs first, an ansent of the surface owner trans- tounty commission for the county are secretary from these distance re- to be employed during well site of	sed for huma an occupied d poultry husb on the date a e of intent to of d to any dwel mitted to the v in which su- estrictions upo onstruction, d e safety and p	n or domestic animal consum welling structure, or a building structure, or a building sandry. This limitation is apparent to the surface owner of the surface owner o	ndred fifty feet measured horizontally from aption. The center of well pads may not be ag two thousand five hundred square feet or plicable to those wells, developed springs, of planned entry for surveying or staking as ded in subsection (b), section sixteen of this to that date. This limitation may be waived the real property records maintained by the ermore, the well operator may be granted a identifies the sufficient measures, facilities variance, if granted, shall include terms and and property. The terms and conditions may
			AIVER	
WW-6A and a required, and State: County: District: Quadrangle: Watershed:	attachments consisting of pages or the well plat, all for proposed wel West Virginia Marshall Meade Glen Easton 7.5' Fish Creek (HUC-10)	ne (1) through	, including the tract of land as follows: UTM NAD 83 Easting: UTM NAD 83 Northing: Public Road Access: Generally used farm name:	
I further state	that I have no objection to the pla	nned work de	scribed in these materials, and	I I have no objection to a permit being
WELL SITE	e materials and I therefore waive RESTRICTIONS BEING WAI all that apply			FION BY A NATURAL PERSON
□ EXISTIN	NG WATER WELLS		Print Name: Date:	
□ DEVEL	OPED SPRINGS			TION BY A CORPORATION, ETC.
DWELI	INGS		By: Douglas L. Del	
□ AGRICU	ULTURAL BUILDINGS		Its: Attorney-in-Fact Signature: Date: TRUE	
	Tug Hill Operating, LLC		Signature:	
By: David G. DeL Its: Land Team L			Telephone: 121-749-8388	
Its: Land Team L	ead	1	-	
Chester / Pine My Comn	NOTARIAL SEAL Arthur West IV, Notary Public Twp., Allegheny County sission Expires Feb. 10, 2020		ed and sworn before me this	Notary Public
The Office of O personal inform or regulatory re	ation may be disclosed to other State equirements, including Freedom of Ir	nformation, such agencies or the aformation Act	ch as name, address and telephon ird parties in the normal course o requests. Our office will approp	to number, as part of our regulatory duties. Your f business or as needed to comply with statutory riately secure your personal information. If you officer at depprivacyofficer@wv.gov.

RECEIVED Office of Oil and Gas

DPS LAND SERVICES CORP 6000 TOWN CENTER BOULEVARD, SUITE 145 CANONSBURG PA 15317-5841

4705102278

WW-6RW (1-12)

API NO. 47-OPERATOR WELL NO. Knob Creek N-1HM 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 pyth-Faci, TH Exploration, U.C., hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form , including the erosion and sediment control plan, if WW-6A and attachments consisting of pages one (1) through required, and the well plat, all for proposed well work on the tract of land as follows: West Virginia State: UTM NAD 83 Easting: 525,215.39 County: Marshall UTM NAD 83 Northing: 4,402,269.20 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 FOR EXECUTION BY A NATURAL PERSON *Please check all that apply Signature: Print Name: ☐ EXISTING WATER WELLS Date: FOR EXECUTION BY A CORPORATION, ETC. □ DEVELOPED SPRINGS Company: TH Exploration, LLC as Attorney-in-Fact for Thomas John Fox By: Douglas L. DeMartino DWELLINGS Its: Attorney-in-Fact ☐ AGRICULTURAL BUILDINGS Signature: Date: Well Operator: Tug Hill Operating, LLC Signature: By: David G. DeLallo Telephone: Its: Land Team Lead day of September 2019 COMMONWEALTH OF PENNSYLVANIA Subscribed and sworn before me this 30h NOTABLY SEAL Chester Arthur West IV, Notary Public Notary Public Pine Twp., Allegheny County My Commission Expires, Feb. 10, 2020 EMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES My Commission Expires 7-10-1000 Oil and Gas Privacy Notice: The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your

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

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NOV 2 6 2019

WV Department of **Environmental Protection**

Marshall County Jan Pest, Clerk Instrument 1459602 10/01/2019 @ 02:09:05 PM MISCELLANEOUS Book 40 @ Page 68 Pages Recorded 1 Recording Cost \$ 11 M DPS LAND SERVICES CORP 6000 TOWN CENTER BOULEVARD: SUITE 145 CANONSBURG PA 15317-5841

300K 0 0 4 0 PAGE 0 0 6 9

4705102278

WW-6RW (1-12)

API NO. 47OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

The well ope work. Please	erator, Tug Hill Operating, LLC be advised that well work permits	is applying for a permit are valid for twenty-four (24)	from the State) months.	e of West Virginia to co	nduct oil or gas well
Pursuant to Vany existing located within larger used to dwellings or provided in sarticle was proby written exclerk of the evariance by the or practices to conditions the	water well or developed spring us a six hundred twenty-five feet of a confidence of the hundred twenty-five feet of a confidence of the hundred twenty-five feet of a confidence of the feet of a spricultural buildings that existed ection ten of this article or a notice rovided, whichever occurs first, and consent of the surface owner transmit county commission for the county he secretary from these distance reached by the secretary from the secretary from these distance reached by the secretary from the secret	sed for human or domestic an occupied dwelling structure poultry husbandry. This like on the date a notice to the set of intent to drill a horizontal date any dwelling under constituted to the department and in which such property is estrictions upon submission construction, drilling and ope to safety and protection of affects	animal consumers, or a building mitation is apurface owner of the second	nption. The center of wing two thousand five his policiable to those wells of planned entry for surided in subsection (b), so to that date. This limit the real property recordermore, the well operate in identifies the sufficient variance, if granted, shared	rell pads may not be indred square feet or , developed springs, reging or staking as ection sixteen of this ation may be waived as maintained by the or may be granted a t measures, facilities all include terms and
		WAIVER			
provisions lis WW-6A and	wy Automorphin-Fact, TH Exploration, LLC, hereby state that sted above, and that I have received attachments consisting of pages or the well plat, all for proposed well West Virginia Marshall Meade	d copies of a Notice of Appli ne (1) through	eation, an App including the follows: 3 Easting: 3 Northing:	lication for a Well Wor.	k Permit on Form ontrol plan, if
Quadrangle:	Glen Easton 7.5'			David Lee Franklin	10,70
*Please check EXISTI DEVEL OUTPUT DEVEL		all well site restrictions lister IVED 1	I under West FOR EXECU Signature: Print Name: Date: FOR EXECU Company: THE By: Douglas L. De tts: Attorney-in-Fai	Virginia Code § 22-6A- TION BY A NATURA TION BY A CORPOR poloration, LLC as Attorney-in-Fact for Martino ct	12(a). L PERSON RATION, ETC.
☐ AGRIC	ULTURAL BUILDINGS		Signature:	8012019 3012019	
Well Operator By: David G. De Its: Land Team		Signatur		5	
Chester A Pine My Comm MEMBER PEN Oil and Gas I The Office of personal infor or regulatory	NOTARIAL SEAL ARTHUR West IV, Notary Public Twp., Allegheny County mission Expires Feb. 10, 2020 STIVACY NOTARIES Oil and Gas processes your personal immation may be disclosed to other State requirements, including Freedom of Intions about our use or your personal in	e agencies or third parties in the nformation Act requests. Our o	es Z ress and telepho normal course ffice will appro	ne number, as part of our of business or as needed to priately secure your person	comply with statutory nal information. If you

RECEIVED
Office of Oil and Gas

NOV 26 2019

W/V Department of Environmental Protection Marshall County
Jan Pest, Clerk
Instrument 1459603
10/01/2019 @ 02:09:06 PM
MISCELLANEOUS
Book 40 @ Page 69
Pages Recorded 1
Recording Cost \$ 11.00

DPS LAND SERVICES CORP 6000 TOWN CENTER BOULEVARD, SUITE 145 CANONSBURG PA 15317-5841

4705102278

WW-6RW (1-12)

APINO 47-OPERATOR WELL NO. Knob Creek N-1HM Well Pad Name: Knob Creek

Notary Public

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, Linds Lee Franklin, by my Allotroney-in-Fact. TH Excharation, 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: 525,215.39 County: Marshall UTM NAD 83 Northing: 4,402,269.20 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 FOR EXECUTION BY A NATURAL PERSON *Please check all that apply Signature: Print Name: ☐ EXISTING WATER WELLS FOR EXECUTION BY A CORPORATION, ETC. □ DEVELOPED SPRINGS Company: TH Exploration, LLC as Atto By: Douglas L. DeMartino DWELLINGS Its: Attorney-in-Fac ☐ AGRICULTURAL BUILDINGS Signature: Date: Well Operator: Tug Hill Operating, LLC Signature: By: David G. DeLallo Telephone: Its: Land Team Lead Subscribed and sworn before me this 30h day of Deptember 2019 COMMONWEALTH OF PENNSYLVANIA NOTARRAL SEAL Chester Arthur West IV, Notary Public Pine Twp., Allegheny County My Commission Expires Feb. 10, 2020

Oil and Gas Privacy Notice:

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

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.

My Commission Expires

RECEIVED Office of Oil and Gas

NOV 2 6 2019

WV Department of **Environmental Protection** Marshall County Jan Pest, Clerk Instrument 1459604 10/01/2019 @ 02:09:07 PM MISCELLANEOUS Book 40 @ Page 70 Pages Recorded 1 Recording Cost \$ 11.00

2-10-2020

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4705102278

WW-6RW (1-12)

API NO. 47-OPERATOR WELL NO. Knob Creek N-1HM Well Pad Name: Knob Creek

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

	rator, Tug Hill Operating, LLC is be advised that well work permits are v	s applying for a permit from the State ralid for twenty-four (24) months.	of West Virginia to conduct oil or gas well
Well Locatio	n Restrictions		
any existing located within larger used to dwellings or provided in so article was proby written coclerk of the covariance by the conditions the conditions the	water well or developed spring used for a six hundred twenty-five feet of an occor house or shelter dairy cattle or poultagricultural buildings that existed on the ection ten of this article or a notice of invovided, whichever occurs first, and to a consent of the surface owner transmitted county commission for the county in whe secretary from these distance restrict to be employed during well site constru	or human or domestic animal consum- cupied dwelling structure, or a building try husbandry. This limitation is applied at a notice to the surface owner of them to drill a horizontal well as providing under construction prior to to the department and recorded in the which such property is located. Further tions upon submission of a plan which action, drilling and operations. The very and protection of affected persons a	ndred fifty feet measured horizontally from ption. The center of well pads may not be g two thousand five hundred square feet of plicable to those wells, developed springs of planned entry for surveying or staking as ded in subsection (b), section sixteen of this to that date. This limitation may be waived he real property records maintained by the rmore, the well operator may be granted a identifies the sufficient measures, facilities ariance, if granted, shall include terms and property. The terms and conditions may
		WAIVER	
I, Douglas L. Dell	Martino, Esq. hereby state that I ha		med on Page WW-6A and the associated
provisions lis WW-6A and	ted above, and that I have received copi attachments consisting of pages one (1) the well plat, all for proposed well work West Virginia	es of a Notice of Application, an Appl through , including the	ication for a Well Work Permit on Form
County:	Marshall	UTM NAD 83 Northing:	4,402,269.20
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 issued on tho	that I have no objection to the planned se materials and I therefore waive all we	work described in these materials, and ell site restrictions listed under West \	I I have no objection to a permit being Virginia Code § 22-6A-12(a).
WELL SITE	RESTRICTIONS BEING WAIVED c all that apply		TION BY A NATURAL PERSON

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 wo	ork described in these materials, and I have no objection	on to a permit being
issued on tho	se materials and I therefore waive all well s	site restrictions listed under West Virginia Code § 22	-6A-12(a).
WELL SITE	RESTRICTIONS BEING WAIVED	FOR EXECUTION BY A NAT	URAL PERSON
*Please check	c all that apply	Signature:	
	NG WATER WELLS	Print Name:	
□ EXISTII	NG WATER WELLS	Date:	
☐ DEVEL	OPED SPRINGS	FOR EXECUTION BY A COR	PORATION, ETC.
L DD V DL	OTED BITAINOS	Company: TH Exploration, LLC	
DWEL1	LINGS	By: Douglas L. DeMartino, Esq.	
		Its: Attorney-in-Fact	
☐ AGRICU	ULTURAL BUILDINGS	Signature: Nel Z Nall	
		Date: 2/30/19	
Well Operato	Tug Hill Operating, LLC	Signature:	
By: David G. Del	Lallo	Telephone: 124-749-8388	
Its: Land Team I	Lead		
		-	
2014101	MATERIAL OF PERMISSION OF STREET	oscribed and sworn before me this 30 harmonday of	Sal. 4-7019
COMMO	NWEALTH OF PENNSYLVANIA Sub	day ofday of	represented to

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

My Commission Expires

Notary Public

MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES
Oil and Gas Privacy Notice:

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

> RECEIVED Office of Oil and Gas

NOV 26 2019

W/V Department of Environmental Protection Marshall County Jan Pest, Clerk Instrument 1459605 10/01/2019 @ 02:09:08 PM MISCELLANEOUS Book 40 @ Page 71 Pages Recorded 1 11.00 Recording Cost \$

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4705102278

WW-6RW (1-12)

API NO. 47-OPERATOR WELL NO. Knob Creek N-1HM 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, Poul G. Fox. by my Atternoy-In-Fact, TH Exploration, LLC, hereby state that I have read the Instructions to Persons Named on Page WW-6A and the associated provisions listed above, and that I have received copies of a Notice of Application, an Application for a Well Work Permit on Form , including the erosion and sediment control plan, if WW-6A and attachments consisting of pages one (1) through required, and the well plat, all for proposed well work on the tract of land as follows: State: West Virginia UTM NAD 83 Easting: 525,215.39 County: Marshall UTM NAD 83 Northing: 4.402.269.20 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 FOR EXECUTION BY A NATURAL PERSON *Please check all that apply Signature: Print Name: ☐ EXISTING WATER WELLS FOR EXECUTION BY A CORPORATION, ETC. □ DEVELOPED SPRINGS Company: TH Exploration, LLC as Attorney-in-Fact for Paul G. Fox By: Douglas L. DeMartino DWELLINGS Its: Attorney-in-Fact ☐ AGRICULTURAL BUILDINGS Signature: Date Well Operator: Tug Hill Operating, LLC Signature By: David G. DeLallo Telephone: Its: Land Team Lead forn before me this 30 day of Subscribed an COMMONWEATHR OF BENNSYLVANIA NOTARIAL SEAL Notary Public Sean Cotter, Notary Public City of Pittsburgh, Allegheny County My Commission Expires Oct. 12, 2019 My Commission Expires The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your

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

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NOV 26 2019

WV Department of Environmental Protection Marshall County Jan Pest, Clerk Instrument 1459606 10/01/2019 @ 02:09:09 PM MISCELLANEOUS Book 40 @ Page 72 Pages Recorded 1 Recording Cost \$ 11.00

100K 0 0 4 0 PAGE 0 0 7 3

4705102278

WW-6RW (1-12)

API NO. 47-OPERATOR WELL NO, Knob Creek N-1HM Well Pad Name: Knob Creek

STATE OF WEST VIRGINIA DED A DULATION OF BAXES

The well one	rator, Tug Hill Operating, LLC	is applying for a permit	from the State	of West Virginia to conduct oil or gas	ival
	be advised that well work permit	s are valid for twenty-four (2	4) months.	or west virginia to conduct on or gas	wei
	n Restrictions				
any existing located within larger used to dwellings or provided in sufficient was proposed by written colork of the evariance by the conditions the conditi	water well or developed spring uses hundred twenty-five feet of the house or shelter dairy cattle of agricultural buildings that existed ection ten of this article or a notice ovided, whichever occurs first, and ansent of the surface owner transpounty commission for the countries secretary from these distance roo be employed during well site of	ased for human or domestic an occupied dwelling structur poultry husbandry. This I if on the date a notice to the state of intent to drill a horizontal and to any dwelling under consmitted to the department an y in which such property is restrictions upon submission of construction, drilling and open te safety and protection of affi	animal consumers, or a building imitation is apparent of a well as provided in the content of a plan which crations. The vected persons a sements.	dred fifty feet measured horizontally aption. The center of well pads may not g two thousand five hundred square feedlicable to those wells, developed spring planned entry for surveying or staking ded in subsection (b), section sixteen of to that date. This limitation may be was the real property records maintained by armore, the well operator may be grant identifies the sufficient measures, faciliariance, if granted, shall include terms and property. The terms and conditions	et o ings ing a f thi ived the ted litie
Y Mark & East but my At	tomovie Seat TH Evolution III . It is a large state the			NW Charles	
provisions lis WW-6A and	ted above, and that I have receive	ed copies of a Notice of Appli one (1) through	cation, an Appl , including the of follows:	med on Page WW-6A and the associate ication for a Well Work Permit on Forrerosion and sediment control plan, if	n
County:	Marshall		83 Northing:	525,215.39 4,402,269.20	
District:	Meade	Public Road		St. Joseph Road - County Route 21	_
Quadrangle:	Glen Easton 7.5"		ed farm name:		
Watershed:	Fish Creek (HUC-10)	Generally us	ea min name.	party 200 / Taronio	
I further state		anned work described in thes	e materials, and	I have no objection to a permit being /irginia Code § 22-6A-12(a).	
WELL SITE	RESTRICTIONS BEING WA	IVED		TION BY A NATURAL PERSON	1
☐ EXISTING WATER WELLS			Print Name;		
☐ EXISTI			FOR EXECUTION BY A CORPORATION, ETC. Company: TH Exploration, LLC as Attorney-in-Fact for Mark H. Fox		
	OPED SPRINGS		FOR EXECUT Company: THEX	TION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Mark H. Fox	
			FOR EXECUT Company: THEX By: Douglas L. Del Its: Attorney-in-Fac	ploration, LLC as Attorney-in-Fact for Mark H. Fox Martino	

Well Operator: Tug Hill Operating, LLC Signature: By: David G. DeLallo Telephone: 724-749-8388 Its: Land Team Lead COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL 30 efore me this Sean Cotter Notary Public City of Pittsburgh, Allegheny County My Commission Expires Oct. 12, 2019 day of Subscribed and sworm

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.

My Commission Expires

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NOV 2 6 2019

WV Department of Environmental Protection Marshall County Jan Pest, Clerk Instrument 1459607 10/01/2019 @ 02:09:10 PM MISCELLANEOUS Book 40 @ Page 73 Pages Recorded 1 11.00 Recording Cost \$

Notary Public

100K 0 0 4 0 PAGE 0 0 7 4

4705102278

WW-6RW (1-12)

API NO. 47OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

The well ope work. Please	rator, _Tug Hill Operating, LLC be advised that well work permits a	is applying for a perm are valid for twenty-four (nit from the State (24) months.	of West Virginia to conduct oil of	or gas well
Pursuant to V any existing value of the located within larger used to dwellings or a provided in so article was proby written co- clerk of the covariance by the or practices to conditions the	Nestrictions Vest Virginia Code § 22-6A-12(a), water well or developed spring use a six hundred twenty-five feet of an o house or shelter dairy cattle or pagricultural buildings that existed o ection ten of this article or a notice of covided, whichever occurs first, and ansent of the surface owner transmit county commission for the county in the secretary from these distance restrong to be employed during well site comes department requires to ensure the same, bonding and indemnification, a	ed for human or domestic a occupied dwelling struc- boultry husbandry. This on the date a notice to the of intent to drill a horizon to any dwelling under co- itted to the department a in which such property is trictions upon submission astruction, drilling and op- safety and protection of a	c animal consumpture, or a building limitation is apply surface owner of the construction prior the construction prior the slocated. Further of a plan which perations. The verificated persons as	otion. The center of well pads may two thousand five hundred squalicable to those wells, developed planned entry for surveying or ed in subsection (b), section sixto that date. This limitation may be real property records maintain more, the well operator may be identifies the sufficient measures triance, if granted, shall include	hay not be are feet or ed springs, staking as een of this be waived ned by the granted a s, facilities terms and
		WAIVE			
provisions list WW-6A and	ted above, and that I have received of attachments consisting of pages one the well plat, all for proposed well west Virginia	copies of a Notice of App (1) through _ work on the tract of land :	olication, an Appl _, including the e	cation for a Well Work Permit or	n Form
County:	Marshall		83 Northing:	4,402,269.20	
District:	Meade	Public Roa		St. Joseph Road - County Route 21	
Quadrangle:	Glen Easton 7.5'			David Lee Franklin	
Watershed:	Fish Creek (HUC-10)		ayea min mine.		
I further state	that I have no objection to the plant	ned work described in the	ese materials, and	I have no objection to a permit b	eing
issued on thos	se materials and I therefore waive al	Il well site restrictions list	ted under West V	irginia Code § 22-6A-12(a).	
	RESTRICTIONS BEING WAIV	ED	FOR EXECUT	ION BY A NATURAL PERSO	N
*Please check	call that apply				_
□ EXISTIN	NG WATER WELLS		Print Name:		
			Date:	TON DW 1 CORDON 1000	ETTIC
☐ DEVEL	OPED SPRINGS			ION BY A CORPORATION, I	EIC.
DWELI	INGS		Company: TH Exploration, LLC By: Douglas L. DeMartino		
E DYYELI	LINGS		Its: Attorney-in-Fact		
☐ AGRICU	JLTURAL BUILDINGS		Signature:	west Toll	
	r: Tug Hill Operating, LLC	Signat	ture		
By: David G. Del	allo	Telepl	hone: 724-749-8388		
Its: Land Team L	ead NWEALTH OF PENNSYLVANIA				
S. City of	NOTARIAL SEAL ean Cotter, Notary Public r Phicough Yallegheny County nmission Expires Oct. 12, 2019	Subscribed and sworn	Defore me this_		y Public
		Mu Commission For	1.1	2/2019	
0" 10 P	Kara a Aras a	My Commission Exp.	ires 101	61261	

Oil and Gas Privacy Notice:

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NOV 2 6 2019

WV Department of Environmental Protection Marshall County
Jan Pest, Clerk
Instrument 1459608
10/01/2019 @ 02:09:11 PW
MISCELLANEOUS
Book 40 @ Page 74
Pages Recorded 1
Recording Cost \$ 11.00

4705102275

WW-6RW (1-12)

API NO. 47-OPERATOR WELL NO. Knob Creek N-1HM Well Pad Name: Knob Creek

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

work. Please be advised that well work permits	are valid for twenty-four	(24) months.	e of west virginia to	conduct off or gas well
Well Location Restrictions Pursuant to West Virginia Code § 22-6A-12(a), any existing water well or developed spring use ocated within six hundred twenty-five feet of an arger used to house or shelter dairy cattle or dwellings or agricultural buildings that existed corovided in section ten of this article or a notice article was provided, whichever occurs first, and by written consent of the surface owner transmit clerk of the county commission for the county variance by the secretary from these distance response practices to be employed during well site conconditions the department requires to ensure the include insurance, bonding and indemnification,	ed for human or domest n occupied dwelling stru poultry husbandry. This on the date a notice to the of intent to drill a horizon I to any dwelling under contitted to the department in which such property strictions upon submission instruction, drilling and consafety and protection of safety	ic animal consuncture, or a building limitation is applied as provious truction prior and recorded in its located. Furthern of a plan which perations. The paffected persons as	inption. The center of ing two thousand five opplicable to those we of planned entry for standard in subsection (b) to that date. This lim the real property recommender the well open in identifies the suffici- variance, if granted, s	well pads may not be hundred square feet or ils, developed springs, surveying or staking as section sixteen of this nitation may be waived ords maintained by the rator may be granted a ent measures, facilities hall include terms and
	WAIVE			
Mary A. Fox, by my Attorney-in-Fact, TH Exploration, LLC , hereby state that provisions listed above, and that I have received WW-6A and attachments consisting of pages on required, and the well plat, all for proposed well state: West Virginia County: Marshall	copies of a Notice of Ap e (1) through work on the tract of land UTM NAI UTM NAI	plication, an App , including the as follows: D 83 Easting: D 83 Northing:	lication for a Well Werosion and sediment 525,215.39 4,402,269.20	ork Permit on Form control plan, if
District: Meade Quadrangle: Glen Easton 7.5'		Public Road Access: Generally used farm name:		Route 21
Watershed: Fish Creek (HUC-10) If further state that I have no objection to the plant assued on those materials and I therefore waive a	nned work described in th	ese materials, an	d I have no objection	to a permit being A-12(a).
WELL SITE RESTRICTIONS BEING WAI *Please check all that apply		FOR EXECU Signature:	TION BY A NATUR	RAL PERSON
☐ EXISTING WATER WELLS		Print Name: Date;		
☐ DEVELOPED SPRINGS		FOR EXECUTION BY A CORPORATION, ETC. Company: TH Exploration, LLC as Attorney-in-Fact for Mary A. Fox		
DWELLINGS		By: Douglas L. De	Martino	
☐ AGRICULTURAL BUILDINGS		Its: Attorney-in-Factorial Signature:	Dexil ZOUR	
Well Operator: Tug Hill Operating, LLC	Signa	ature.	yavi.	
By: David G. DeLallo	Telep	phone: 724-749-8388		
ts: Land Team Lead				
COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL Searn Cotten Notary Public City of Pittsburgh, Allegheny County My Commission Expires Oct. 12, 2019	Subscribed and swor	Defore me this_	30 day of	Sapt ember 201 Notary Public
Oil and Gas Privacy Notice:	My Commission Exp	pireslo/L	1/2019	
The Office of Oil and Gas processes your personal in personal information may be disclosed to other State	nformation, such as name, a	ddress and telepho	ne number, as part of or	ur regulatory duties. Your

or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

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NOV 2 6 2019

WV Department of Environmental Protection

Marshall County Jan Pest, Clerk Instrument 1459609 10/01/2019 @ 02:09:12 PM MISCELLANEOUS Book 40 @ Page 75 Pages Recorded 1 Recording Cost \$ 11.00 The well operator, Tug Hill Operating, LLC

DPS LAND SERVICES CORP 6000 TOWN CENTER BOULEVARD, SUITE 145 CANONSBURG PA 15317-5841

4705102278

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

WW-6RW (1-12)

API NO. 47OPERATOR WELL NO. Knob Creek N-1HM
Well Pad Name: Knob Creek

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

WELL LOCATION RESTRICTION WAIVER

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, LouisT, Fox, by my Attorney-in-Fact, TH Exploration, LLC, hereby state that provisions listed above, and that I have received WW-6A and attachments consisting of pages on	I have read the Instructions to Persons Na copies of a Notice of Application, an Appl	ication for a Well Work Permit on Form	
required, and the well plat, all for proposed well State: West Virginia	work on the tract of land as follows: UTM NAD 83 Easting:	525,215,39	
County: Marshall	UTM NAD 83 Easting:	4,402,269,20	
District: Meade	Public Road Access:	St. Joseph Road - County Route 21	
Quadrangle: Glen Easton 7.5'	Generally used farm name:	15 10 10 10 10 10 10 10 10 10 10 10 10 10	
Watershed: Fish Creek (HUC-10)	Gonerany used farm name.	David Los Hammin	
I further state that I have no objection to the plantissued on those materials and I therefore waive a	all well site restrictions listed under West	I I have no objection to a permit being Virginia Code § 22-6A-12(a).	
*Please check all that apply	Signature:	TION BY A NATURAL PERSON	
☐ EXISTING WATER WELLS	Date:		
☐ DEVELOPED SPRINGS		TION BY A CORPORATION, ETC. ploration, LLC as Attorney-in-Fact for Louis T. Fox	
DWELLINGS	By: Douglas L, Del		
☐ AGRICULTURAL BUILDINGS	Signature:	West I Dat	
Well Operator: Tug Hill Operating, LLC	Signature		
By: David G. DeLallo	Telephone: 724-749-8388		
Its: Land Team Lead COMMONWEALTH OF PENNSYLVANIA			
NOTARIAL SEAL Sean Cotter, Notary Public City of Pittsburgh, Allegheny County My Commission Expires Oct. 12, 2019	Subscribed and sworn before me this_	30 day of September 2019 Notary Public	
Oil and Gas Privacy Notice:	My Commission Expires 10/1;	2/2019	

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.

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NOV 26 2019

WV Department of Environmental Protection Marshall County
Jan Pest, Clerk
Instrument 1459610
10/01/2019 @ 02:09:13 PM
MISCELLANEOUS
Book 40 @ Page 76
Pages Recorded 1
Recording Cost \$ 11.00



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

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

October 1, 2019

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

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

James A. Martin, Chief Office of Oil and Gas Department of Environmental Protection 601 57th 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	
THIS CICCH CINT D I HITC	Mod Cicck Ollit 2-13HO	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

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OCT 0 2 2019



PLANNED ADDITIVES TO BE USED IN FRACTURING OR STIMULATION

Well No. Knob Creek N-1HM

PRODUCT NAME:	CHEMICAL DESCRIPTION:	PRODUCT USE:	HAZARDOUS COMPONENT:
GBW-20C	Hemicellulase Breaker	Breaker - Water	None
ALPHA 1427		Biocide	Glutaraldehyde – CAS#000111-30-8 Quatemary ammonium chloride CAS# 007173-51-5 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

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OCT 0 2 2019

