

**Knob Creek N Lease
Utica Unit - 458.32 AC ±
Well 11HU
Tug Hill Operating**

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

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-11-1	GERALD F. PADLOW	1.033
9-13-10	ARTHUR L. MOORE	3.96
9-13-13.1	THOMAS JOHN FOX	0.827
9-14-2	MICHAEL L. ALVAREZ	0.75
9-14-35	PAUL G. FOX	0.338
9-14-37	MARGARET FOX - LIFE	LOT
9-14-40	MARGARET FOX - LIFE	19,560 SQ. FT.
9-14-41	MARGARET FOX - LIFE	9165 SQ. FT.
9-16-14	LYNN CAMP METHODIST CHURCH	0.762
9-16-15	RONALD R. YOUNG, ET UX - LIFE	52.02
9-16-15.1	ERIC J. YOUNG	1.98

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

NAD'83 S.P.C.(FT)	N. 464,844.77	E. 1,629,670.00
NAD'83 GEO.	LAT-(N) 39.769995	LONG-(W) 80.705472
NAD'83 UTM (M)	N. 4,402,270.92	E. 525,224.95
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 464,992.5	E. 1,628,542.5
NAD'83 GEO.	LAT-(N) 39.770359	LONG-(W) 80.709491
NAD'83 UTM (M)	N. 4,402,310.2	E. 524,880.7
BOTTOM HOLE		
NAD'83 S.P.C.(FT)	N. 476,749.9	E. 1,622,075.4
NAD'83 GEO.	LAT-(N) 39.802393	LONG-(W) 80.733070
NAD'83 UTM (M)	N. 4,405,859.2	E. 522,850.6

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°42'30"

TAG	SURFACE OWNER	PARCEL	ACRES
A	DAVID LEE FRANKLIN	9-14-33	65.824
B	RONALD R. YOUNG ET UX - LIFE	9-16-15	52.02
C	LYNN CAMP METHODIST CHURCH	9-16-14	0.762
D	PAUL G. FOX	9-14-35	0.338
E	MARGARET FOX - LIFE	9-14-38	0.631
F	MARGARET FOX - LIFE	9-14-37	LOT
G	MARGARET FOX - LIFE	9-14-40	19,560 SQ. FT.
H	MARGARET FOX - LIFE	9-14-36	1,600 SQ. FT.
I	MARGARET FOX - LIFE	9-14-39	8,675 SQ. FT.
J	MARGARET FOX - LIFE	9-14-41	9,165 SQ. FT.
K	DAVID LEE FRANKLIN	9-14-44	2.913
L	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
M	JAMES RICHMOND	9-16-12	28.638
N	THOMAS JOHN FOX	9-13-13.1	0.827
O	MARGARET FOX - LIFE	9-13-13	15.513
P	JOHN C. LAGOS, ET UX	9-14-42	1.87
Q	NILA JEAN FROHNAPFEL	9-13-12	91.1007
R	DANIEL JAY FITZWATER	9-13-20	105.5
S	ELEANOR M. FOX ESTATE	9-13-18	30.00
T	ELEANOR M. FOX ESTATE	9-13-19	19.20
U	TRICYCLE LLC	9-13-22	42.27
V	KENNETH & TERESA A. SMERTNECK	9-13-11	112.67
W	SHUTLER FAMILY TRUST	9-13-8	56.04
X	MARY VIRGINIA PETHTELL - LIFE	9-13-7	96.00
Y	ARTHUR L. MOORE	9-13-9	57 X 117 SQ. FT.
Z	ARTHUR L. MOORE	9-13-10	3.96
AA	MARGARET FOX - LIFE	9-11-2	84.378
BB	GERALD PADLOW, ET UX	9-11-2.2	0.291
CC	GERALD PADLOW, ET UX	9-11-1	1.033
DD	JRAY A. WHEIZAL, JR., ET AL.	9-10-13	71.119
EE	WILLIAM MCCONNELL	9-10-14	15.00
FF	MARY VIRGINIA PETHTELL - LIFE	9-13-6	66.36
GG	WILLIAM D. MCCONNELL	9-10-16	0.859
HH	JOSEPH MICHAEL BONENE	9-10-15	44.00
II	COBLENTZ BROS. INC.	9-10-18	67.88
JJ	KENNETH W. MASON ESTATE	9-10-6	43.00
KK	KENNETH W. MASON ESTATE	9-10-4	67.00
LL	KENNETH W. MASON ESTATE	9-10-5	51.62
MM	J. F. CROW ESTATE, ET AL.	9-6-15	55.23
NN	JANE RICHARDSON HEIRS, ET AL.	9-6-16	23.05
OO	WILLIAM N. ROUPE	9-10-3	52.00
PP	ROBERT LEE CARNEY, ET UX	9-6-4	118.17
QQ	WILLIAM N. ROUPE	9-6-3	110.09
RR	CONSOLIDATION COAL COMPANY/MURRAY ENERGY	9-6-3.1	10.00

7,894' T.H. A.D.
11,282' B.H. A.D.

NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- SEE REFERENCES FOR DWELLINGS LOCATED WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- BASED ON WV DOT COUNTY ROUTE 74 IS A 40' STRIP OF LAND ACQUIRED IN NUMEROUS DEEDS.
- PROPOSED LATERAL OR TOP HOLE OF Knob Creek N-11HU (47-051-02287) IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF EXISTING WELLS:
 Knob Creek N-12HU (47-051-02268),
 Knob Creek N-13HU (47-051-02269),
 Knob Creek S-14HU (47-051-02288),
 Knob Creek S-15HU (47-051-02289),
 Knob Creek S-16HU (47-051-02290),
 HEAVEN HILL 2W-13HU (47-051-01957),
 KEITH STERN N-13HU (47-051-02265).
- PLAT UPDATED TO SHOW AS DRILLED PATH.
- AS DRILLED DATA PROVIDED BY TUG HILL OPERATING.

T.H. A.D.

B.H. A.D.

AS DRILLED COORDINATES FOR WELL NO. 11HU

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

NAD'83 S.P.C.(FT)	N. 464,844.77	E. 1,629,670.00
NAD'83 GEO.	LAT-(N) 39.769995	LONG-(W) 80.705472
NAD'83 UTM (M)	N. 4,402,270.92	E. 525,224.95
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 465,075.9	E. 1,628,512.1
NAD'83 GEO.	LAT-(N) 39.770587	LONG-(W) 80.709602
NAD'83 UTM (M)	N. 4,402,335.4	E. 524,871.0
BOTTOM HOLE		
NAD'83 S.P.C.(FT)	N. 476,739.5	E. 1,622,032.1
NAD'83 GEO.	LAT-(N) 39.802393	LONG-(W) 80.733224
NAD'83 UTM (M)	N. 4,405,855.8	E. 522,837.5

DETAIL SCALE: 1" = 500'

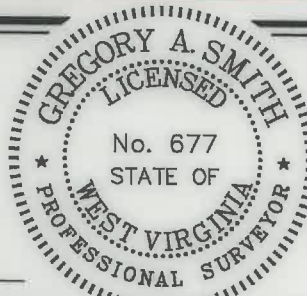


12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
 1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3932
 254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
 slsenv.com

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

P.S. 677

Gregory A. Smith



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE SEPTEMBER 30, 20 22
 REVISED _____
 OPERATORS WELL NO. Knob Creek N-11HU
 API WELL NO. 47 - 051 - 02287
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8789P11HUAD.dwg
Knob Creek N-11HU REV4
 HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

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



WELL TYPE: OIL GAS INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: GROUND = 734.20' ELEVATION PROPOSED = 734.67' WATERSHED FISH CREEK (HUC 10)
 DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER DAVID LEE FRANKLIN ACREAGE 65.824±
 ROYALTY OWNER DAVID LEE FRANKLIN, ET AL - SEE ADDITIONAL SHEETS ACREAGE 65.824±

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG AND ABANDON CLEAN OUT AND REPLUG OTHER

PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION POINT PLEASANT
 ESTIMATED DEPTH TVD: 11,298' / TMD: 25,044'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DARREN BROWN - CT CORPORATION
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107 ADDRESS 5098 WASHINGTON ST. W, STE 407 CHARLESTON, WV 25313-1561

COUNTY NAME PERMIT

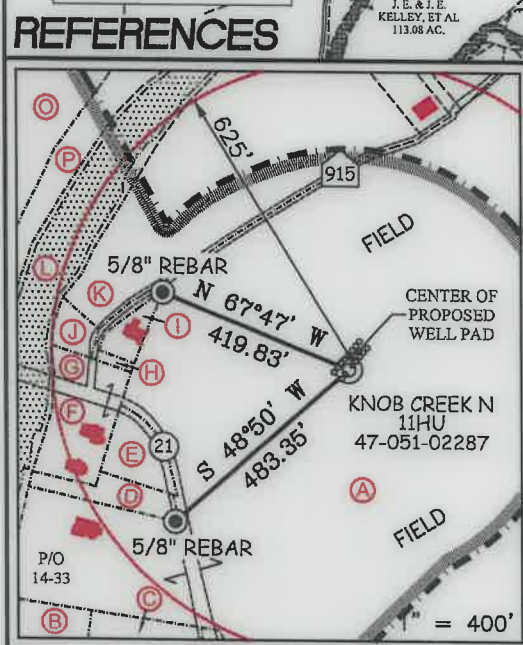
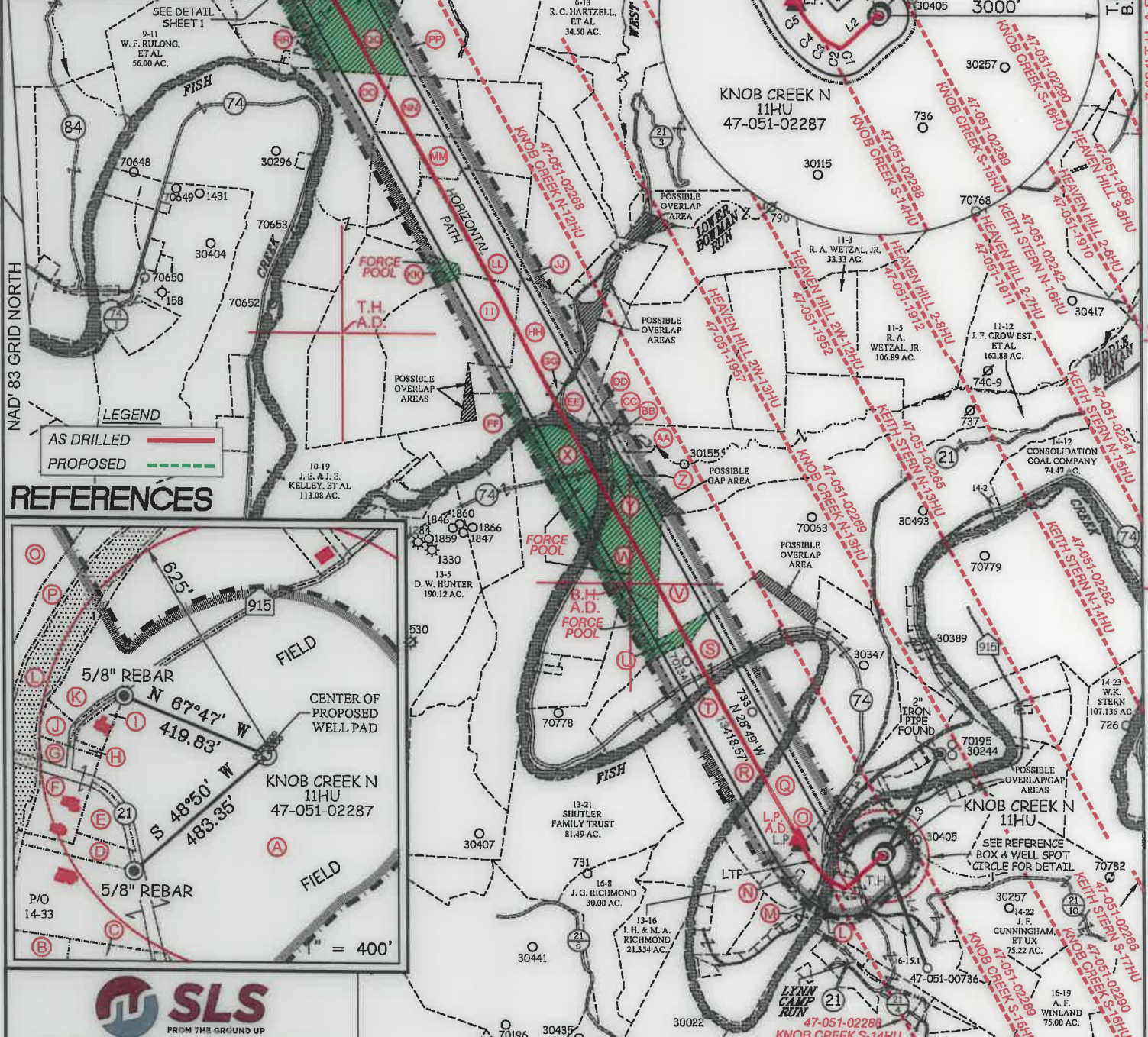
10/21/2022

**Knob Creek N Lease
Utica Unit - 458.32 AC ±
Well 11HU
Tug Hill Operating**

LINE	BEARING	DISTANCE
L1	S 68°27' W	52.38'
L2	S 47°39' W	585.03'
L3	N 29°22' E	1596.33'
L4	S 21°02' E	1643.06'

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

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°42'30"



SLS
FROM THE GROUND UP

12 Vanhorn Drive | P.O. Box 100 | Glenville, WV 26351 | 304.462.3634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.265.5298
sllwv.com

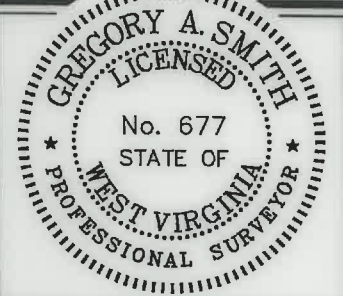
P.S. 677 *Gregory A. Smith*

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	56.78'	70.73'	S 73°15' W	55.26'
C2	99.70'	256.68'	N 71°44' W	99.07'
C3	220.06'	996.75'	N 54°12' W	219.62'
C4	161.65'	1120.16'	N 44°42' W	161.51'
C5	367.90'	1775.97'	N 34°28' W	367.24'

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NAD'83 UTM (M)	N. 4,405,859.2	E. 522,850.6



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

LEGEND

- UNIT BOUNDARY
- LEASED TRACTS INSIDE
- UNIT BOUNDARY
- SURFACE LINE
- PROPOSED UTICA WELL LATERAL
- 400' OFFSET LINE
- 500' OFFSET LINE
- TIE LINE
- FORCE POOL TRACT
- CREEK
- ROAD
- PROPOSED FIRST TAKE POINT
- PROPOSED LAST TAKE POINT
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE ADDITIONAL SHEETS)

SCALE 1" = 2000' FILE NO. 8789P11HUAD.dwg
KNOB CREEK N-11HU REV4
DATE SEPTEMBER 30, 2022
REVISED
OPERATORS WELL NO. KNOB CREEK N-11HU
API WELL NO. 47 — 051 — 02287
NO. STATE COUNTY PERMIT

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

WELL OPERATOR TUG HILL OPERATING, LLC ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107
DESIGNATED AGENT DARREN BROWN - CT CORPORATION ADDRESS 5098 WASHINGTON ST. W, STE 407 CHARLESTON, WV 25313-1561

10/21/2022

COUNTY NAME PERMIT

**KNOB CREEK N LEASE
UTICA UNIT - 458.32 AC ±
WELL 11HU
TUG HILL OPERATING**



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slswv.com

NO.	Lease ID	Parcel	Tag	Grantor, Lessor, Etc.	Deed Book/Page	
1	10*47051.219.1	9-14-33	A	DAVID LEE FRANKLIN	874	312
2	10*23112	9-16-15	B	JOHN V AND RACHEL M SHEPHERD	63	219
3	10*23112	9-16-14	C	JOHN V AND RACHEL M SHEPHERD	63	219
4	10*47051.219.1	9-14-35	D	DAVID LEE FRANKLIN	937	385
5	10*47051.243.1	9-14-38	E	MARY A FOX, ET AL.	879	332
6	10*47051.219.1	9-14-37	F	DAVID LEE FRANKLIN, ET AL.	937	385
7	10*18298	9-14-40	G	MAUREEN GREGG, ET AL.	929	273
8	10*47051.219.1	9-14-36	H	DAVID LEE FRANKLIN	937	385
9	10*47051.219.1	9-14-39	I	DAVID LEE FRANKLIN	937	385
10	10*47051.219.1	9-14-41	J	DAVID LEE FRANKLIN	937	385
11	10*47051.219.1	9-14-44	K	DAVID LEE FRANKLIN	937	385
12	10*23458	FISH CREEK	L	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	1019	373
13	10*16481	9-16-12	M	JAMES G RICHMOND AND CINDY L RICHMOND	829	71
14	10*18732	9-13-13.1	N	SHERRILL M LEAVERS AND JAMES H LEAVERS, ET AL.	938	245
15	10*18732	9-13-13	O	SHERRILL M LEAVERS AND JAMES H LEAVERS, ET AL.	938	245
16	10*19538	9-14-42	P	JOHN C LAGOS AND CYNTHIA M LAGOS	936	531
17	10*24858	9-13-12	Q	NILA JEAN FROHNAPFEL	1028	119
18	10*17193	9-13-20	R	JOHN P. ICARD, ET AL.	716	12
19	10*18351	9-13-18	S	MARK ALLEN LENENBERG, ET AL.	931	399
20	10*18351	9-13-19	T	MARK ALLEN LENENBERG, ET AL.	931	399
21	*FORCE POOL*	9-13-22	U	TRICYCLE, LLC	881	615
22	10*27247	9-13-22	U	DANIEL R AND JOANNA L JOHNSON	1053	3
23	10*27248	9-13-22	U	NILA K & THOMAS R MOWDER	1053	5
24	10*18265	9-13-11	V	KENNETH NELSON SMERTNECK AND TERESA ANN SMERTNECK	933	103
25	*FORCE POOL*	9-13-8	W	ROBERT LEE SHUTLER AND PAATRICIA A. SHULER, TRUSTEES OF THE SHUTLER FAMILY TRUST	702	386
26	*FORCE POOL*	9-13-7	X	FRANK E. PETHEL AND MARY VIRGINIA PETHEL (LIFE ESTATE)	668 672 771	525 171 11
27	10*19534	9-13-9	Y	ARTHUR L MOORE AND SHARON A MOORE	936	553
28	*FORCE POOL*	9-13-9	Y	ROBERT LEE SHUTLER AND PAATRICIA A. SHULER, TRUSTEES OF THE SHUTLER FAMILY TRUST	702	386
29	10*19534	9-13-10	Z	ARTHUR L MOORE AND SHARON A MOORE	936	553
30	*FORCE POOL*	9-13-10	Z	ROBERT LEE SHUTLER AND PAATRICIA A. SHULER, TRUSTEES OF THE SHUTLER FAMILY TRUST	702	386
31	10*47051.243.1	9-11-2	AA	MARY A FOX, ET AL.	879	332
32	10*16526	9-11-2.2	BB	JUDITH PADLOW AKA JUDI L PADLOW	957	134
33	10*16526	9-11-1	CC	JUDITH PADLOW AKA JUDI L PADLOW	957	134
34	10*15567	9-10-13	DD	VICKIE J MASON, ET AL.	680	409
35	10*15600	9-10-14	EE	WILLIAM D MCCONNELL	715	447
36	"FORCE POOL"	9-13-6	FF	FRANK E. PETHEL AND MARY VIRGINIA PETHEL (LIFE ESTATE)	668 672 771	525 171 11
37	10*16510	9-10-16	GG	WILLIAM D MCCONNELL	957	148
38	10*47051.117.1	9-10-15	HH	JOSEPH MICHAEL BONENE	876	79
39	10*17383	9-10-18	II	JACQUES ROY, ET AL.	919	631
40	10*17385	9-10-18	II	GABRIEL ARTHUR KRAUSE ROY	919	633
41	10*17386	9-10-18	II	LYNNE MERYL KRAUSE	919	629
42	10*17387	9-10-18	II	JACINTHE KRAUSE-ROY	919	636
43	10*15504	9-10-6	JJ	JAMES MASON ET AL	692	461
44	*FORCE POOL*	9-10-4	KK	JAMES MASON ET AL	692	461
45	10*19749	9-10-4	KK	JOHN CALVERT	944	428
46	10*19750	9-10-4	KK	DELORES J MYERS	944	430
47	10*19824	9-10-4	KK	ROBERT BRADLEY HIGGINS	946	57
48	10*19972	9-10-4	KK	ALBERT J WARSINKY AIF ELLEN K NYLES	948	209
49	10*15504	9-10-5	LL	JAMES MASON ET AL	692	461
50	10*15511	9-6-15	MM	DAVID E CROW, ET AL.	718	376
51	10*15464	9-6-16	NN	MARY ALICE THOMAS MELLOTT, ET AL	906	527
52	10*23561	9-10-3	OO	VINCENT PATRELLO AND AMANDA PATRELLO, ET AL	988	97
53	10*19116	9-6-4	PP	ROBERT LEE CARNEY AND BONNIE ANNE CARNEY	682	255
54	10*18839	9-6-3	QQ	MARGARET DARLENE DUTTON, ET AL.	937	607
55	*FORCE POOL*	9-6-3	QQ	VICKY JO GRIFFIN AKA VICKIE JO GRIFFIN	870	134
56	*FORCE POOL*	9-6-3	QQ	THOMAS MICHAEL GRIFFIN	870	128
57	*FORCE POOL*	9-6-3	QQ	THE DERROW FAMILY IRREVOCABLE TRUST	874	500
58	*FORCE POOL*	9-6-3	QQ	SONDRA S. MENENDEZ	864	565
59	*FORCE POOL*	9-6-3	QQ	RUTH FUNNER	870	132
60	*FORCE POOL*	9-6-3	QQ	JOSEPH MARK MENENDEZ	868	440
61	*FORCE POOL*	9-6-3	QQ	CATHERINE E. GRIFFIN	889	13
62	10*18839	9-6-3.1	RR	MARGARET DARLENE DUTTON, ET AL.	937	607
63	*FORCE POOL*	9-6-3.1	RR	VICKY JO GRIFFIN AKA VICKIE JO GRIFFIN	870	134
64	*FORCE POOL*	9-6-3.1	RR	THOMAS MICHAEL GRIFFIN	870	128
65	*FORCE POOL*	9-6-3.1	RR	THE DERROW FAMILY IRREVOCABLE TRUST	874	500
66	*FORCE POOL*	9-6-3.1	RR	SONDRA S. MENENDEZ	864	565
67	*FORCE POOL*	9-6-3.1	RR	RUTH FUNNER	870	132
68	*FORCE POOL*	9-6-3.1	RR	JOSEPH MARK MENENDEZ	868	440
69	*FORCE POOL*	9-6-3.1	RR	CATHERINE E. GRIFFIN	889	13

FILE NO. 8789P11HUAD.dwg
KNOB CREEK N-11HU REV4

DATE SEPTEMBER 30, 20 22

REVISED _____

OPERATORS WELL NO. KNOB CREEK N-11HU

API WELL NO. 47 — 051 — 02287
STATE COUNTY PERMIT



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



10/27/2022

P.S. 677

Gregory A. Smith

COUNTY NAME PERMIT

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

DESIGNATED AGENT DARREN BROWN - CT CORPORATION
ADDRESS 5098 WASHINGTON ST. W, STE 407
CHARLESTON, WV 25313-1561