

**KNOB CREEK N LEASE  
UTICA UNIT - 385.63 AC±  
WELL 12HU  
TUG HILL OPERATING**

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

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

NAD'83 S.P.C.(FT) N. 464,863.27 E. 1,629,685.28  
NAD'83 GEO. LAT-(N) 39.770047 LONG-(W) 80.705419  
NAD'83 UTM (M) N. 4,402,276.64 E. 525,229.52

**LANDING POINT**

NAD'83 S.P.C.(FT) N. 465,600.0 E. 1,629,596.8  
NAD'83 GEO. LAT-(N) 39.772066 LONG-(W) 80.705769  
NAD'83 UTM (M) N. 4,402,500.6 E. 525,198.8

**BOTTOM HOLE**

NAD'83 S.P.C.(FT) N. 477,384.4 E. 1,623,144.8  
NAD'83 GEO. LAT-(N) 39.804175 LONG-(W) 80.729295  
NAD'83 UTM (M) N. 4,406,058.0 E. 523,173.2

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

7,875' T.H.

10,622' B.H.

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-1-1	GERALD F. PADLOW	1.033
9-15-10	ARTHUR L. MOORE	3.96
9-13-11.1	SAMUEL & HEATHER SUHODOLSKI	0.49
9-15-13.1	THOMAS JOHN FOX	0.827
9-14-1.1	MICHAEL L. ALVAREZ	1.6
9-14-1.2	KENNETH N. & TERESA A. SMERTINECK	1.02
9-14-2	MICHAEL L. ALVAREZ	0.75
9-14-3	MICHAEL L. ALVAREZ	P/O PARCELS 3
9-14-4	MICHAEL L. ALVAREZ	3 PCLS & 1/8 AC
9-14-5	MICHAEL L. ALVAREZ	200' X 60' PCLS
9-14-6	MICHAEL L. ALVAREZ	120' X 200' PCLS
9-14-7	JOHN T. ERAZMUS, III	0.25
9-14-8	JOHNNY C. HOLCOMB & JOHNNY C. HOLCOMB, II	2/5 AC.
9-14-9	JOHN E. DUFFY, ET UX	2/5 AC.
9-14-10	ROBERT I. DUFFY - LIFE	25/100 AC.
9-14-25	PATRICIA A. DUGAS	0.539
9-14-27	PATRICK J. SCHELLHASE - TRUST	3.004
9-14-28	CHARLES R. SCHELLHASE, ET UX	3.029
9-14-29	ANDREW FASOULETOS, ET UX	0.209
9-14-29.1	ANDREW FASOULETOS, ET UX	1.171
9-14-30	WILLIAM C. GROFT, ET UX	0.35
9-14-35	PAUL G. FOX	0.338
9-14-36	MARGARET FOX - LIFE	1600 SQ. FT.
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.
9-14-45	GEORGE R. TAYLOR, ET UX	10.98
9-14-46.1	MARTHA JANE FAZZARO	1.512
9-14-47	MICHAEL L. & CHERYL J. ACREE	0.355
9-14-48	MICHAEL L. & CHERYL J. ACREE	0.473
9-14-49	MICHAEL L. & CHERYL J. ACREE	0.118
9-14-50	RONALD MARSH	0.707
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

**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-12HU (47-051-02268) IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OR EXISTING WELLS  
KNOB CREEK N-11HU (47-051-02287),  
KNOB CREEK N-13HU (47-051-02289),  
KNOB CREEK S-14HU (47-051-02288),  
KNOB CREEK S-15HU (47-051-02289),  
KNOB CREEK S-16HU (47-051-02290),  
KEITH STERN N-15HU (47-051-02265),  
HEAVEN HILL 2W-12HU (47-051-01952),  
HEAVEN HILL 2W-13HU (47-051-01957).

T.H.

B.H.

TAC	SURFACE OWNER	PARCEL	ACRES
A	DAVID LEE FRANKLIN	9-14-33	65.824
B	MARGARET K. FOX (LIFE)	9-14-38	0.631
C	MARGARET K. FOX (LIFE)	9-14-39	8675 SQ. FT.
D	TWILA C. COFFIELD	9-14-32	0.583
E	TWILA C. COFFIELD	9-14-31	0.184
F	WILFORD F. NELSON, JR., ET UX	9-14-31	0.554
G	DAVID LEE FRANKLIN	9-14-44	2.913
H	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
I	JOHN C. LAGOS, ET UX	9-14-42	1.87
J	JAMES G. FOX	9-14-43	0.66
K	MARGARET K. FOX (LIFE)	9-13-13	15.513
L	JAMES E. PERLMAN	9-14-53	0.535
M	JAMES E. PERLMAN	9-14-52	0.439
N	RICHARD L. HARVETH, ET UX	9-14-54	1.649
O	GEORGE R. TAYLOR, ET UX	9-14-44.1	4.423
P	GEORGE R. TAYLOR, ET UX	9-14-51	1.621
Q	MARGARET K. FOX (LIFE)	9-14-46	18.888
R	MARGARET K. FOX (LIFE)	9-13-14	3.00
S	NILA JEAN FROHNAPFEL	9-13-12	91.1007
T	DANIEL JAY FITZWATER	9-13-20	105.5
U	ROBERT T. & BARBARA A. ANKROM	9-13-12.1	2.632
V	ELEANOR M. FOX EST.	9-13-18	30.00
W	KENNETH N. & TERESA A. SMERTINECK	9-13-11	112.67
X	SHUTLER FAMILY TRUST	P/O 9-13-8	56.04
Y	MARGARET K. FOX (LIFE)	9-11-2	84.378
Z	KENNETH P. GATEWOOD, ET UX	9-11-2.1	0.308
AA	GERALD PADLOW, ET UX	9-11-2.2	0.291
BB	RAY A. WHEITZAL, JR., ET AL.	9-10-13	71.119
CC	WILLIAM MCCONNELL	9-10-4	15.00
DD	J. F. CROW ESTATE, ET AL.	9-10-9	17 AC. 14 P.
EE	J. F. CROW ESTATE, ET AL.	9-10-11	60.00
FF	JOSEPH MICHAEL BONENE	9-10-15	44.00
GG	DAVID & PAMELA SCHIMMEL	9-10-7	1.00
HH	BRENT ALLEN CONNER	9-10-8	2.00
II	RONALD KEITH & RUBY MASON	9-6-12	59.00
JJ	KENNETH W. MASON EST.	9-10-6	43.00
KK	KENNETH W. MASON EST.	9-10-5	51.62
LL	KENNETH W. MASON EST.	9-6-14	19.37
MM	J. F. CROW ESTATE, ET AL.	9-6-15	53.23
NN	JANE RICHARDSON HEIRS, ET AL.	9-6-16	23.05
OO	ROBERT LEE CARNEY, ET UX	9-6-4	118.17
PP	WILLIAM N. ROUPE	9-6-3	110.09

DETAIL  
SCALE: 1" = 500'



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5634  
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952  
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296  
slswv.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. 849 *C. Victor Moyers*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE AUGUST 21, 20 19  
REVISED 08/22/19, 09/18/19, 01/23/20, 02/14/20, 08/27/20  
OPERATORS WELL NO. KNOB CREEK N-12HU  
API WELL NO. 47 - 051 - 02268 MDD  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8789P12HUR-REV5.dwg  
KNOB CREEK N-12HU REV5  
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 = 732.20' 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 WW-6A1 ACREAGE 65.824±  
PROPOSED WORK: LEASE NO. SEE WW-6A1  
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION POINT PLEASANT  
ESTIMATED DEPTH TVD: 11,279' TMD: 24,952'

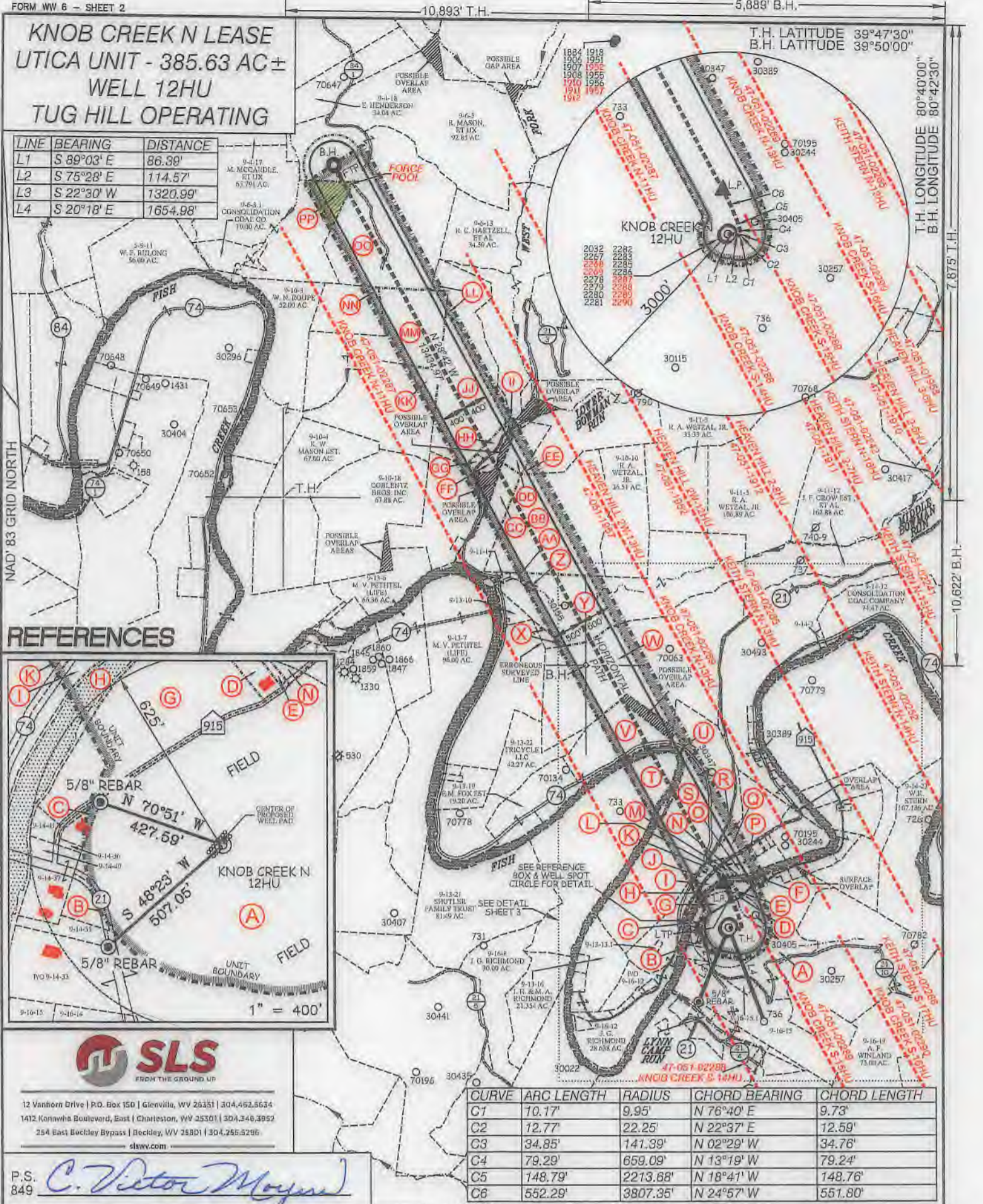
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER  
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS CT CORPORATION SYSTEM  
FORT WORTH, TX 76107 ADDRESS 5400 D BIG TYLER ROAD  
CHARLESTON, WV 25313

COUNTY NAME

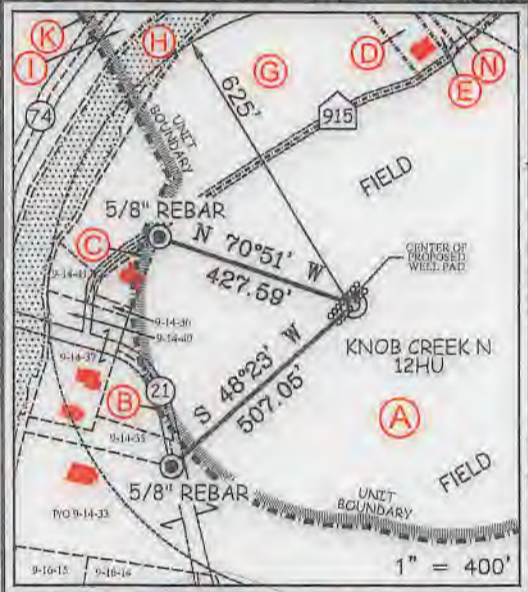
PERMIT

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UTICA UNIT - 385.63 AC ±  
WELL 12HU  
TUG HILL OPERATING**

LINE	BEARING	DISTANCE
L1	S 89°03' E	86.39'
L2	S 75°28' E	114.57'
L3	S 22°30' W	7320.99'
L4	S 20°18' E	1654.98'



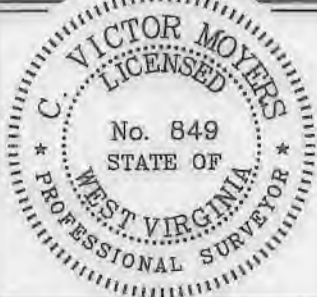
**REFERENCES**



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CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	10.17'	9.95'	N 76°40' E	9.73'
C2	12.77'	22.25'	N 22°37' E	12.59'
C3	34.85'	141.39'	N 02°29' W	34.76'
C4	79.29'	659.09'	N 13°19' W	79.24'
C5	148.79'	2213.68'	N 18°41' W	148.76'
C6	552.29'	3807.35'	N 24°57' W	551.80'



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**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. 8789P12HUR-REV5.dwg  
KNOB CREEK N-12HU REV5  
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OFFICE OF OIL AND GAS  
M&D



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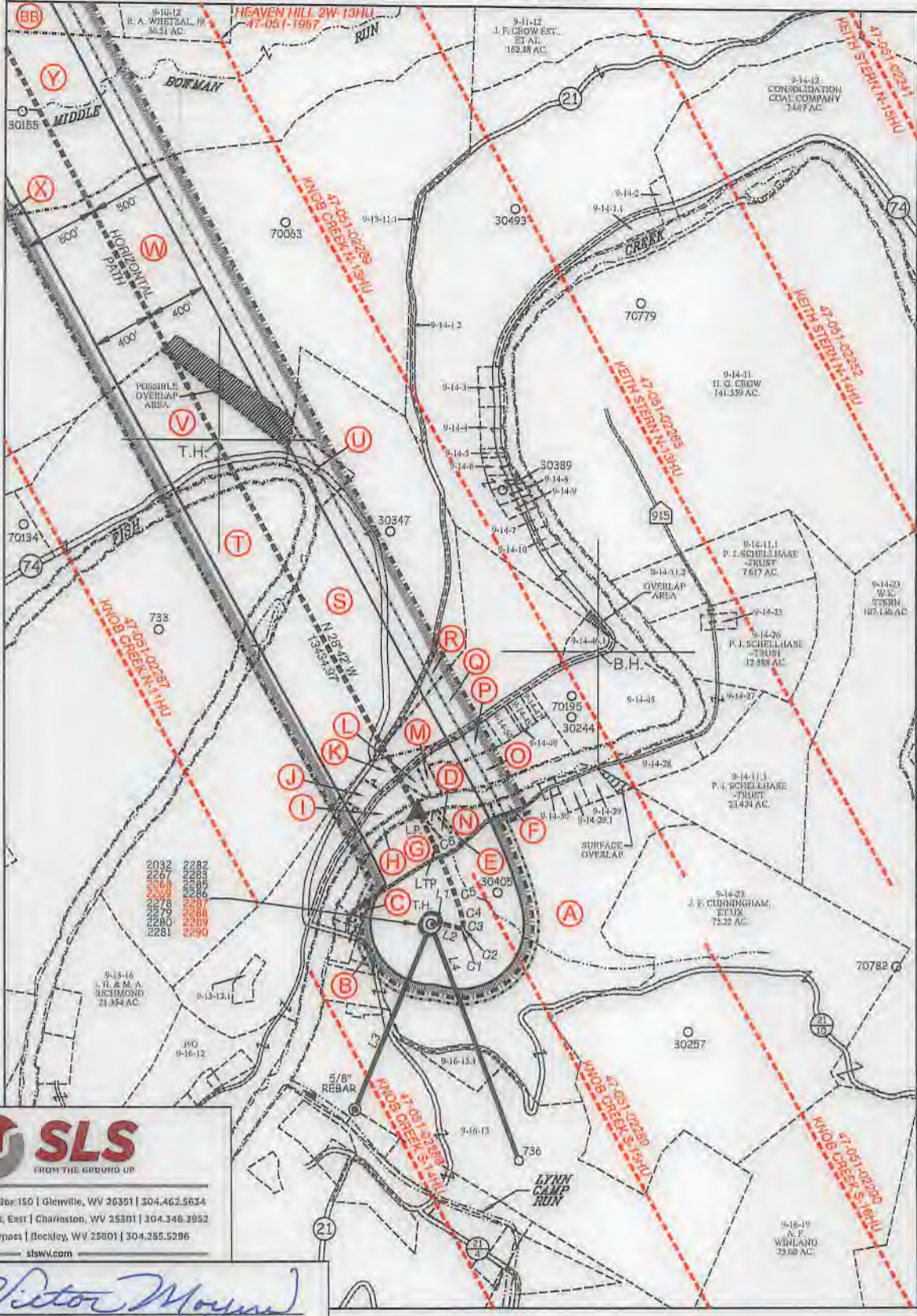
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B.H. LATITUDE 39°50'00"

**SHEET 3 DETAIL  
SCALE - 1" = 1,000'**

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B.H. LONGITUDE 80°42'30"



NAD'83 GRID NORTH

10,622' B.H.



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- SURFACE OWNER (SEE TABLE)
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STATE COUNTY PERMIT MOD

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  
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DESIGNATED AGENT DIANNA STAMPER  
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NO.	Lease ID	Tag	Parcel	Grantor, Lessor, Etc.	Deed Book/Page	
1	10*47051.219.1	A	9-14-33	DAVID LEE FRANKLIN	937	385
2	10*47051.243.1	B	9-14-38	MARY A FOX, ET AL	879	332
3	10*47051.219.1	C	9-14-39	DAVID LEE FRANKLIN	937	385
4	10*47051.219.1	D	9-14-32	DAVID LEE FRANKLIN	937	385
5	10*47051.219.1	E	9-14-32.1	DAVID LEE FRANKLIN	937	385
6	10*47051.219.1	F	9-14-31	DAVID LEE FRANKLIN	937	385
7	10*47051.219.1	G	9-14-44	DAVID LEE FRANKLIN	937	385
8	10*23458	H	FISH CREEK - WV	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	1019	373
9	10*19538	I	9-14-42	JOHN C LAGOS AND CYNTHIA M LAGOS, ET AL	936	531
10	10*18732	J	9-14-43	SHERRILL M LEAVERS AND JAMES H LEAVERS, ET AL	938	245
11	10*18732	K	9-13-13	SHERRILL M LEAVERS AND JAMES H LEAVERS, ET AL	938	245
12	10*19565	L	9-14-53	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, ET AL	947	566
13	10*19565	M	9-14-52	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, ET AL	947	566
14	10*15523	N	9-14-54	RICHARD L HARVETH AND SANDRA J HARVETH	729	638
15	10*19565	O	9-14-44.1	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, ET AL	947	566
16	10*19565	P	9-14-51	WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, ET AL	947	566
17	10*18298	Q	9-14-46	MAUREEN GREGG, ET AL	929	273
18	10*47051.243.1	R	9-13-14	MARY A FOX, ET AL	879	332
19	10*24858	S	9-13-12	NILA JEAN FROHNAPFEL	1028	119
20	10*17193	T	9-13-20	JOHN P. ICARD, ET AL	716	12
21	10*19942	U	9-13-12.1	ROBERT T ANKROM & BARBARA A ANKROM	949	207
22	10*18351	V	9-13-18	MARK ALLEN LENENBERG, ET AL	931	399
23	10*18265	W	9-13-11	KENNETH NELSON SMERTNECK AND TERESA ANN SMERTNECK	933	103
24	10*28299	X	9-13-8	SHUTLER FAMILY TRUST	1070	425
25	10*47051.243.1	Y	9-11-2	MARY A FOX, ET AL	879	332
26	10*47051.272.0	Z	9-11-2.1	KENNETH P GATEWOOD AND MARY M GATEWOOD	888	600
27	10*16526	AA	9-11-2.2	JUDITH PADLOW AKA JUDI L PADLOW	957	134
28	10*15567	BB	9-10-13	VICKIE MASON, ET AL	680	409
29	10*15600	CC	9-10-14	WILLIAM D MCCONNELL	715	447
30	10*15510	DD	9-10-9	ELAINE PHELPS ET VIR, ET AL	718	326
31	10*15510	EE	9-10-11	ELAINE PHELPS ET VIR, ET AL	718	326
32	10*47051.117.1	FF	9-10-15	JOSEPH MICHAEL BONENE	940	359
33	10*47051.117.1	GG	9-10-7	JOSEPH MICHAEL BONENE	940	359
34	10*47051.117.1	HH	9-10-8	JOSEPH MICHAEL BONENE	940	359
35	10*15525	II	9-6-12	RONALD KEITH MASON ET AL	772	445
36	10*15504	JJ	9-10-6	JAMES MASON ET AL	692	461
37	10*15504	KK	9-10-5	JAMES MASON ET AL	692	461
38	10*15504	LL	9-6-14	JAMES MASON ET AL	692	461
39	10*15510	MM	9-6-15	ELAINE PHELPS ET AL	718	326
40	10*15464	NN	9-6-16	MARY ALICE THOMAS MELLOTT ET AL	906	527
41	10*19116	OO	9-6-4	ROBERT LEE CARNEY AND BONNIE ANNE CARNEY	682	255
42	10*18839	PP	9-6-3	MARGARET DARLENE DUTTON, ET AL	937	607

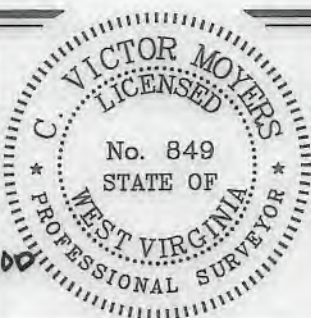
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KNOB CREEK N-12HU REV5

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