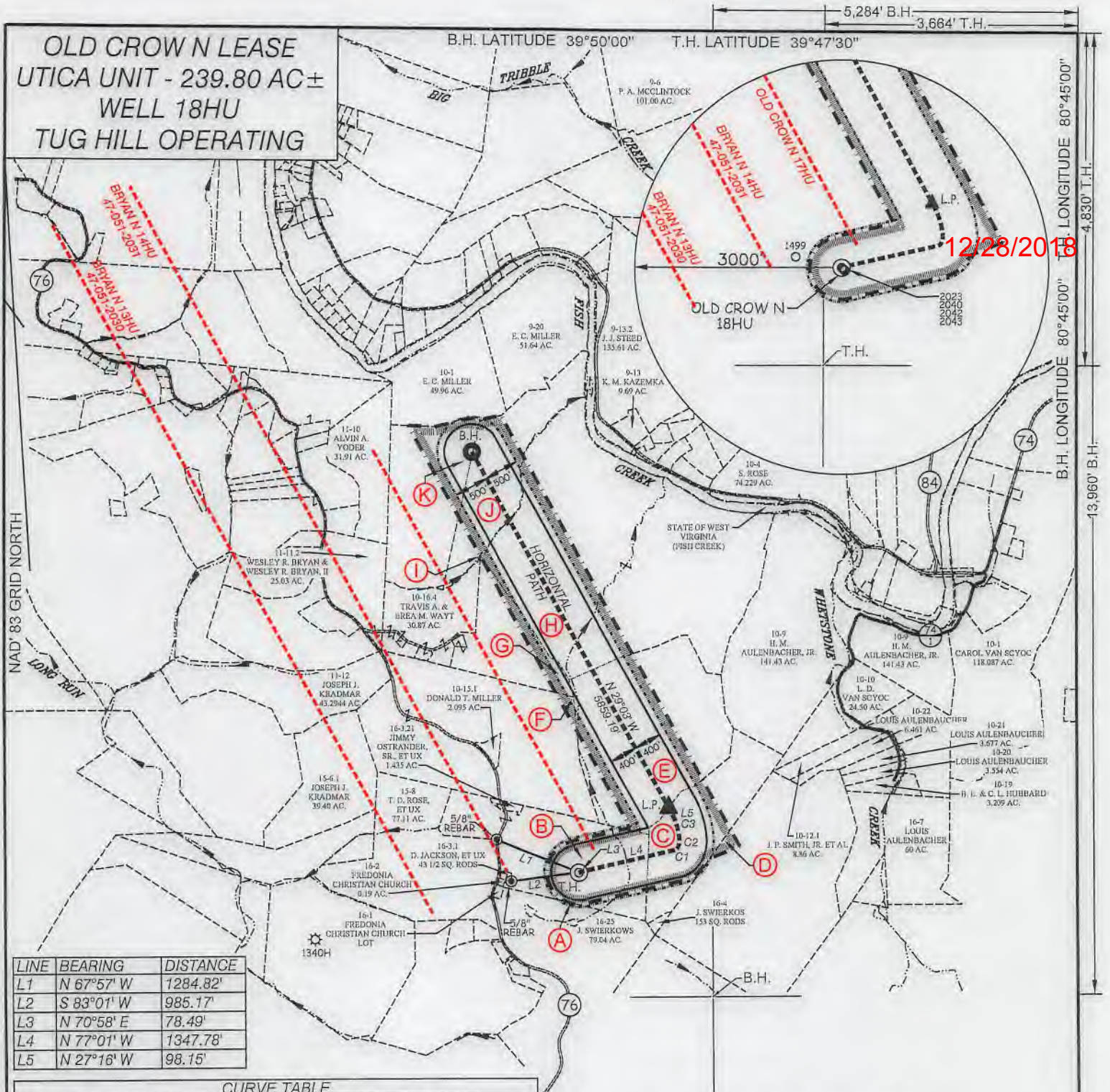


**OLD CROW N LEASE
UTICA UNIT - 239.80 AC±
WELL 18HU
TUG HILL OPERATING**



LINE	BEARING	DISTANCE
L1	N 67°57' W	1284.82'
L2	S 83°01' W	985.17'
L3	N 70°58' E	78.49'
L4	N 77°01' W	1347.78'
L5	N 27°16' W	98.15'

CURVE TABLE				
CURVE	ARC LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING
C1	84.31'	86.57'	81.02'	N 47°06'30" E
C2	146.55'	299.66'	145.10'	N 04°18'50" E
C3	349.48'	1025.10'	347.79'	N 17°28'10" W

47-051-02123 H6A

TAG	SURFACE OWNER	PARCEL	ACRES
A	JOHN SWIERKOS	5-16-25	79.04
B	DONNA VIVIAN YOHO - TOD	5-16-3	71.205
C	JOHN SWIERKOS	5-16-5	52.07
D	JOHN SWIERKOS	5-16-6	134.05
E	JOHN SWIERKOS	5-10-14	100.00
F	PAUL ANDREW & DEBRA A. RINE	5-10-15	120.80
G	TIMOTHY SR. & LINDA MCGINNIS	5-10-16	30.87
H	HERBERT M. AULENBACHER, JR.	5-10-3	225.50
I	MELVIN E., JR. & ELIZABETH A. FERGUSON	5-10-16.4	30.87
J	WILLIAM A. PRASCIK ET AL	5-10-2	52.00
K	ALVIN A. YODER	5-10-17	57.28

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P.S. 849 *C. Victor Moyers*

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)		
NAD'83 S.P.C.(FT)	N. 468,131.25	E. 1,613,534.59
NAD'83 GEO.	LAT-(N) 39.778408	LONG-(W) 80.763035
NAD'83 UTM (M)	N. 4,403,190.04	E. 520,292.49
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 469,078.30	E. 1,614,843.10
NAD'83 GEO.	LAT-(N) 39.781058	LONG-(W) 80.758427
NAD'83 UTM (M)	N. 4,403,485.2	E. 520,686.3
BOTTOM HOLE		
NAD'83 S.P.C.(FT)	N. 474,200.70	E. 1,611,998.50
NAD'83 GEO.	LAT-(N) 39.795010	LONG-(W) 80.768805
NAD'83 UTM (M)	N. 4,405,031.3	E. 519,793.6



SCALE 1" = 2000' FILE NO. 8796P18HU.dwg
OLD CROW NORTH 18HU_REV2

DATE SEPTEMBER 26, 20
REVISED _____, 20 _____

OPERATORS WELL NO. OLD CROW N-18HU

API WELL NO. 47

NO. STATE COUNTY PERMIT

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

(+) 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
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE SHEETS 1, 3, & 4)

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

**OLD CROW N LEASE
UTICA UNIT - 239.80 AC±
WELL 18HU
TUG HILL OPERATING**

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

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

NAD'83 S.P.C.(FT)	N. 468,131.25	E. 1,613,534.59
NAD'83 GEO.	LAT-(N) 39.778408	LONG-(W) 80.763035
NAD'83 UTM (M)	N. 4,403,190.04	E. 520,292.49

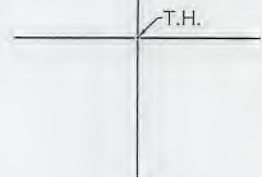
LANDING POINT

NAD'83 S.P.C.(FT)	N. 469,078.30	E. 1,614,843.10
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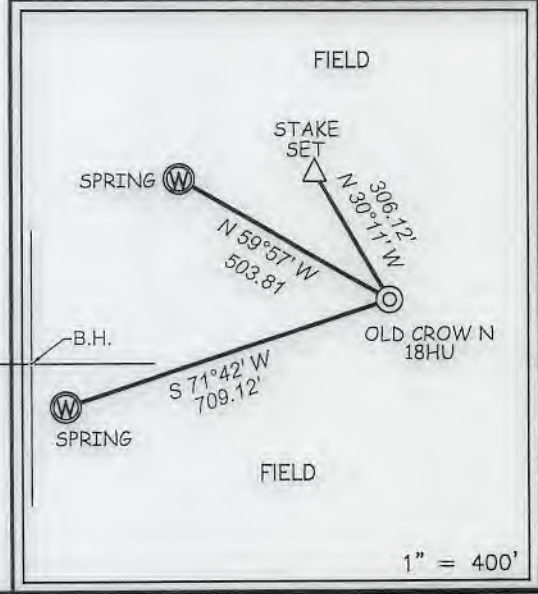
NO.	Lease ID	Tag	Parcel	Oil & Gas Royalty Owner	Deed Book/Page
1	10*21468	A	5-16-25	JOHN A SWIERKOS	953 317
2	10*19340	B	5-16-3	DONNA VIVIAN YOHO	665 407
3	10*14919	C	5-16-5	CHESTNUT HOLDINGS INC	836 117
4	10*21468	D	5-16-6	JOHN A SWIERKOS	953 317
5	10*14920	E	5-10-14	CHESTNUT HOLDINGS INC	836 119
6	10*19017	F	5-10-15	PAUL A RINE AND DEBRA A RINE	796 24
7	10*19126	G	5-10-16	KEVIN R. CORLEY AND ANITA L. CORLEY, HUSBAND AND WIFE	859 44
8	10*14918	H	5-10-3	CHESTNUT HOLDINGS INC	836 115
9	10*19109	J	5-10-16.4	JOHN W. MILLER AND MARY ALICE MILLER, HUSBAND AND WIFE	863 275
10	10*47051.260.0	J	5-10-2	WILLIAM A PRASCIK ET AL	879 302
11	10*19021	K	5-10-17	MARCELLUS TX MINERAL PARTNERS LTD	800 216
12	10*19034	K	5-10-17	JMK IRREVOCABLE TRUST	813 145
13	10*19035	K	5-10-17	PURPLEBURGH VENTURES, LLC	813 138



NOTES ON SURVEY

- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE ARE 1"=2000'

REFERENCES



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www.slsurveys.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 SEPTEMBER 26, 20 18
 REVISED _____, 20 ____
 OPERATORS WELL NO. OLD CROW N-18HU
 API WELL NO. 47-051-02123H6A
 STATE 47 COUNTY 051 PERMIT 02123H6A

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P18HU.dwg
OLD CROW NORTH 18HU_REV2
 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 X LIQUID INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP X SHALLOW _____

LOCATION: GROUND = 1286.70' ELEVATION PROPOSED = 1264.99' WATERSHED TRIBUTARY OF FISH CREEK (HUC-10)

DISTRICT FRANKLIN COUNTY MARSHALL QUADRANGLE POWHATAN POINT 7.5'

SURFACE OWNER DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO ACREAGE 71.205±

ROYALTY OWNER DONNA VIVIAN YOHO, ET AL ACREAGE 71.205±

PROPOSED WORK: DRILL X CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE X 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: 11,531' / TMD: 17,807'

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

B.H. LONGITUDE 80°45'00" 13,960' B.H. 4,830' T.H. B.H. LONGITUDE 80°45'00"