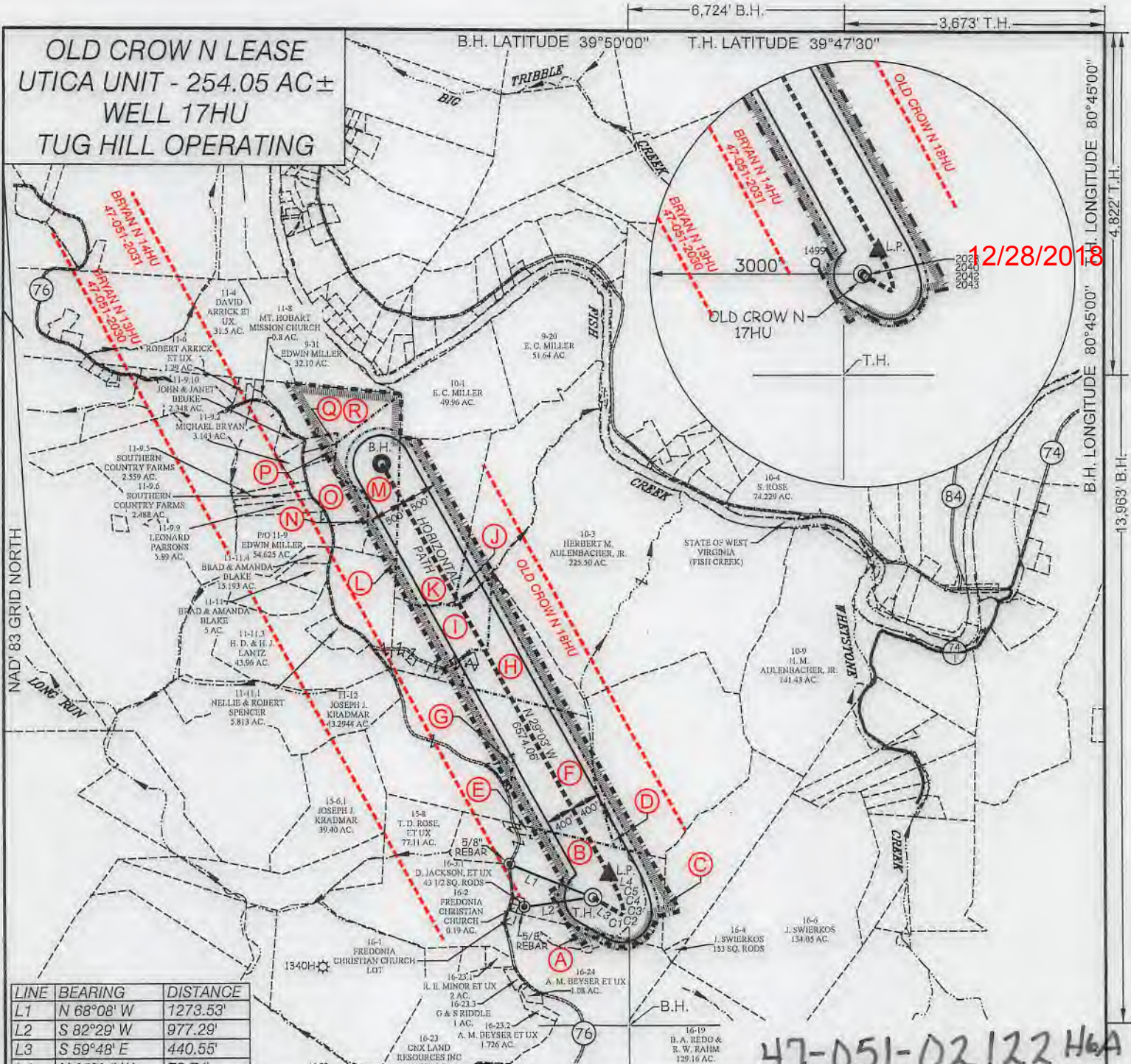


**OLD CROW N LEASE
UTICA UNIT - 254.05 AC ±
WELL 17HU
TUG HILL OPERATING**



12/28/2018

47-051-02122 H6A

LINE	BEARING	DISTANCE
L1	N 68°08' W	1273.53'
L2	S 82°29' W	977.29'
L3	S 59°48' E	440.55'
L4	N 28°24' W	72.74'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	35.67'	45.78'	S 77°51' E	34.77'
C2	454.80'	22.56'	N 40°59' E	18.84'
C3	49.47'	100.08'	N 02°30' E	48.96'
C4	151.19'	670.34'	N 15°15' W	150.86'
C5	316.63'	2447.74'	N 24°24' W	316.41'

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	5-10-14	100.00
E	JIMMY OSTRANDER, SR., ET UX	5-16-3.2	1.435
F	PAUL ANDREW & DEBRA A. RINE	5-10-15	120.80
G	DONALD T. MILLER	5-10-15.1	2.095
H	TIMOTHY SR. & LINDA MCGINNIS	5-10-16	30.87
I	TRAVIS A. & BREA M. WAYT	5-10-16.4	30.87
J	WILLIAM A. PRASCIC ET AL	5-10-2	52.00
K	ALVIN A. YODER	5-10-17	57.28
L	WESLEY R. BRYAN & WESLEY R. BRYAN, II	5-11-11.2	25.03
M	ALVIN A. YODER	5-11-10	31.91
N	JACK S. HUGGINS ET UX	5-11-9.4	4.129
O	JACK SHEPHARD HUGGINS, JR., ET AL	5-11-9.1	10.92
P	SEAN F. MOORE	5-11-9.7	2.03
Q	SEAN F. MOORE	5-11-9.8	2.070
R	EDWIN C. & KIMBERLY MILLER	5-11-9	54.625

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

P.S. 849 *C. Victor Moyers*



(+) 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)

SCALE 1" = 2000' FILE NO. 8796P17HU.dwg
OCTOBER 3, 2018
REVISED 20
OPERATORS WELL NO. OLD CROW N-17HU
API WELL NO. 47
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 DIANNA STAMPER
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

**OLD CROW N LEASE
UTICA UNIT - 254.05 AC±
WELL 17HU
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. 468,139.24	E. 1,613,525.64
NAD'83 GEO.	LAT-(N) 39.778430	LONG-(W) 80.763067
NAD'83 UTM (M)	N. 4,403,192.43	E. 520,289.72

LANDING POINT

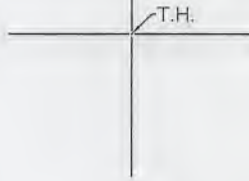
NAD'83 S.P.C.(FT)	N. 468,471.2	E. 1,613,749.9
NAD'83 GEO.	LAT-(N) 39.779350	LONG-(W) 80.762286
NAD'83 UTM (M)	N. 4,403,294.7	E. 520,356.4

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 474,218.5	E. 1,610,558.3
NAD'83 GEO.	LAT-(N) 39.795003	LONG-(W) 80.773931
NAD'83 UTM (M)	N. 4,405,029.4	E. 519,354.8

T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°45'00"

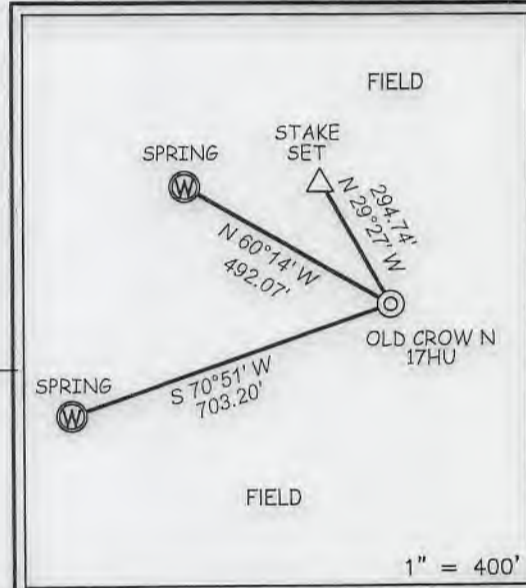
NO.	Lease ID	Tag	Parcel	Oil & Gas Royalty Owner	Deed Book/Page
1	10*21468	A	5-16-25	JOHN A SWIERKOS	953 317
2	10*19340	B	5-16-3	DONNA VIVIAN YOHO	665 407
3	10*14919	C	5-16-5	CHESTNUT HOLDINGS INC	836 117
4	10*14920	D	5-10-14	CHESTNUT HOLDINGS INC	836 119
5	10*19340	E	5-16-3.2	DONNA VIVIAN YOHO	665 407
6	10*19017	F	5-10-15	PAUL A RINE AND DEBRA A RINE	796 24
7	10*19223	G	5-10-15.1	DONALD T MILLER	737 284
8	10*19126	H	5-10-16	KEVIN R. CORLEY AND ANITA L. CORLEY, HUSBAND AND WIFE	859 44
9	10*19109	I	5-10-16.4	JOHN W. MILLER AND MARY ALICE MILLER, HUSBAND AND WIFE	863 275
10	10*17051.260.0	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
14	10*19336	L	5-11-11.2	BONNIE JEAN DAWSON	665 397
15	10*19021	M	5-11-10	MARCELLUS TX MINERAL PARTNERS LTD	800 216
16	10*19034	M	5-11-10	JMK IRREVOCABLE TRUST	813 145
17	10*19035	M	5-11-10	PURPLEBURGH VENTURES, LLC	813 138
18	10*19153	N	5-11-9.4	JACK S HUGGINS JR	700 396
19	10*19153	O	5-11-9.1	JACK S HUGGINS JR	700 396
20	10*14099	P	5-11-9.7	SOUTHERN COUNTRY FARMS INC	666 489
21	10*19172	Q	5-11-9.8	SEAN F MOORE UNDA MOORE	706 581
22	10*14099	R	5-11-9	SOUTHERN COUNTRY FARMS INC	666 489



NOTES ON SURVEY

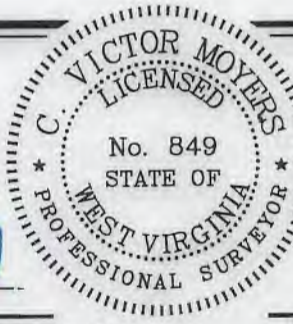
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS ≥ 2500 SQ. FT. OR DWELLINGS WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE ARE 1"=2000'

REFERENCES



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. C. Victor Moyers
849



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE OCTOBER 3, 2018
REVISED _____, 20____
OPERATORS WELL NO. OLD CROW N-17HU
API H6A
WELL NO. 47-051-D2122
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P17HU.dwg
OLD CROW NORTH 17HU_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 LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: GROUND = 1286.73' 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: LEASE NO. SEE TABLE

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: 11,520' / TMD: 18,296'

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

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

COUNTY NAME
PERMIT