

9,728' B.H.

3,632' T.H.

**OLD CROW S LEASE
WELL 13HM
TUG HILL OPERATING**

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. 468,130.93 E. 1,613,566.48
NAD'83 GEO. LAT-(N) 39.778409 LONG-(W) 80.762922
NAD'83 UTM (M) N. 4,403,190.10 E. 520,302.21

LANDING POINT

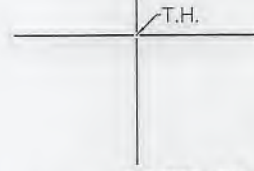
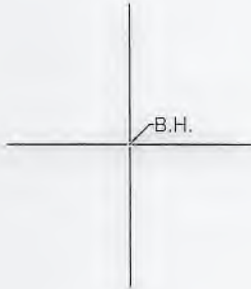
NAD'83 S.P.C.(FT) N. 470,803.7 E. 1,615,322.4
NAD'83 GEO. LAT-(N) 39.785813 LONG-(W) 80.756808
NAD'83 UTM (M) N. 4,404,013.3 E. 520,823.6

BOTTOM HOLE

NAD'83 S.P.C.(FT) N. 464,043.1 E. 1,619,126.0
NAD'83 GEO. LAT-(N) 39.767400 LONG-(W) 80.742941
NAD'83 UTM (M) N. 4,401,973.0 E. 522,016.8

T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°42'30"
4,830' T.H.
8,840' B.H.

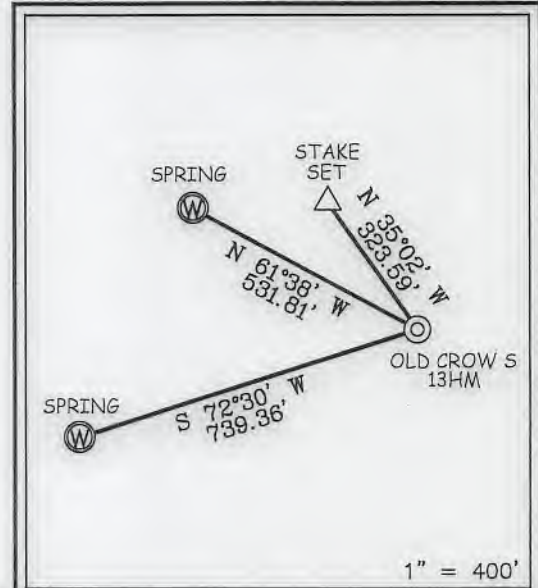
MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
5-10-12.1	JOHN PAUL SMITH, JR., ET AL	8.86
5-10-19	BRADLEY L. & CONNIE L. HUBBARD	3.205
5-10-20	LOUIS AULENBACHER	3.554
5-10-21	LOUIS AULENBACHER	3.677
5-10-22	LOUIS AULENBACHER	6.461
5-17-1.6	LOLA M. SLAUGHTER	6.347
5-17-3.1	WILBUR L. RIDDLE, ET UX	10.148
5-17-16	GLEN A. GUNTO	9.702



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'

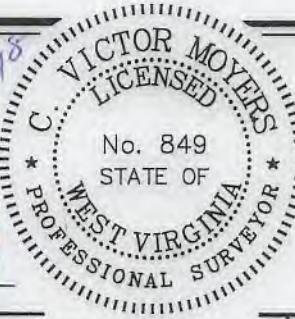
REFERENCES



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. 849

C. Victor Moyers



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JUNE 22, 20 18
REVISED OCTOBER 23, 20 18
OPERATORS WELL NO. OLD CROW S-13HM
API WELL NO. 47 - 51 - 02168
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P13HMR.dwg
OLD CROW NORTH 13HM REV0
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 = 1,288.00' ELEVATION PROPOSED = 1,264.99' WATERSHED TRIBUTARY OF FISH CREEK (HUC-10)
DISTRICT FRANKLIN COUNTY MARSHALL QUADRANGLE POWHATAN POINT 7.5'

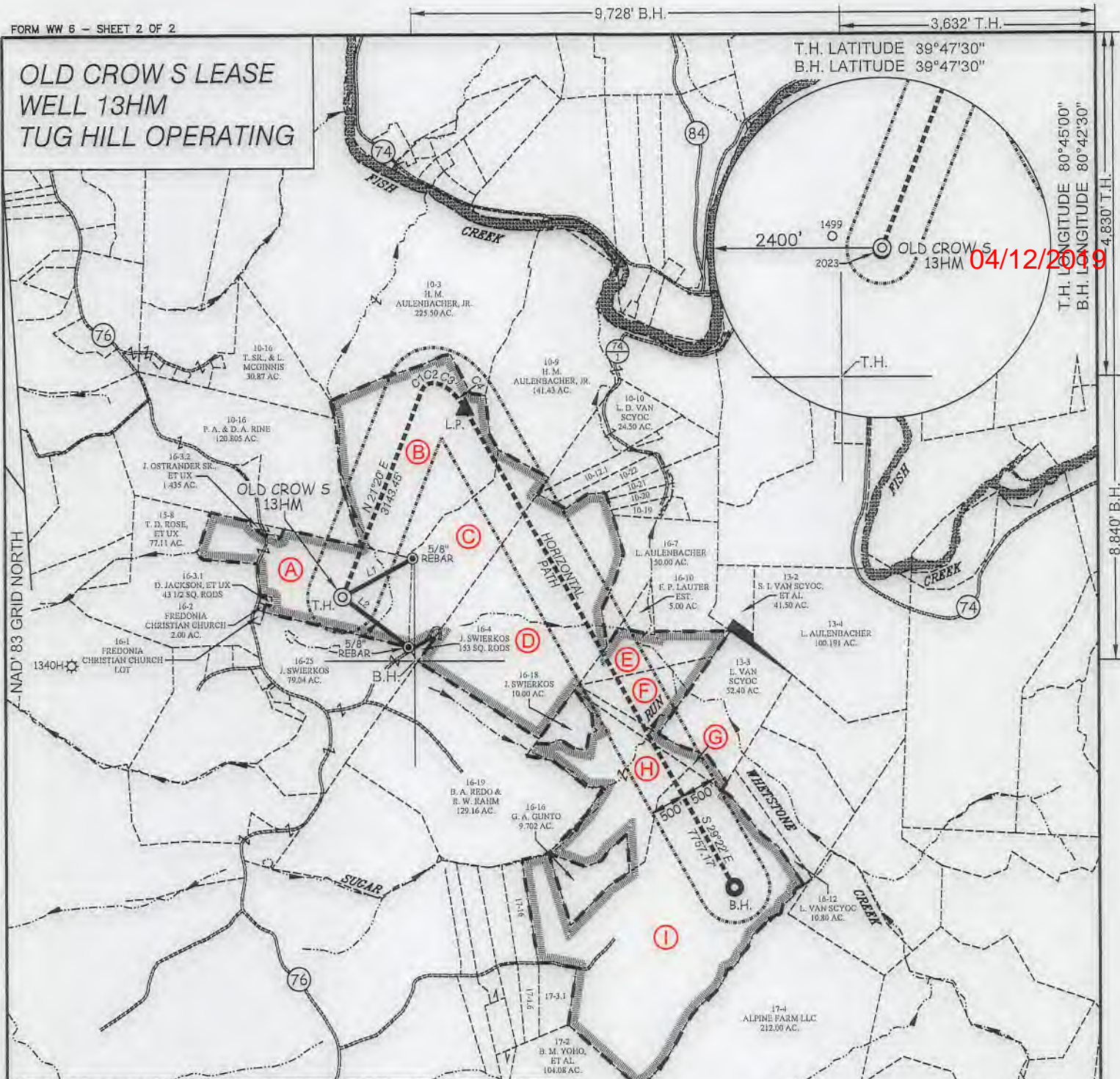
SURFACE OWNER DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO ACREAGE 71.205±
ROYALTY OWNER DONNA VIVIAN YOHO, ET AL ACREAGE 71.205±

PROPOSED WORK: LEASE NO. SEE 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 MARCELLUS
ESTIMATED DEPTH TVD: 6,706' / TMD: 15,817'

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

**OLD CROW S LEASE
WELL 13HM
TUG HILL OPERATING**



CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	138.03'	187.25'	N 43°03' E	134.93'
C2	112.35'	196.39'	N 84°33' E	110.83'
C3	221.47'	453.61'	S 62°53' E	219.28'
C4	342.81'	966.18'	S 39°07' E	341.02'

LINE	BEARING	DISTANCE
L1	N 61°08' E	1138.55'
L2	S 53°02' E	1168.22'

TAG	SURFACE OWNER	PARCEL	ACRES
A	DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO	5-16-3	71.205
B	JOHN SWIERKOS	5-10-14	100.00
C	JOHN SWIERKOS	5-16-5	52.07
D	JOHN SWIERKOS	5-16-6	134.05
E	LOUIS AULENBACHER	5-16-8	21.00
F	LOUIS AULENBACHER	5-16-9	20.00
G	GERTRUDE HOLTZ	5-16-11	9.93
H	CARA DAVIS & BRIAN TESLOVICH, ET AL	5-16-17	55.34
I	SOUTHERN COUNTRY FARMS, INC.	5-17-3	190.132

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 ♦ 12 Vanhorn Drive ♦ Glenville, WV 26035 ♦ (304) 462-9834
www.slsurveyors.com

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 468,130.93 E. 1,613,566.48
 NAD'83 GEO. LAT-(N) 39.778409 LONG-(W) 80.762922
 NAD'83 UTM (M) N. 4,403,190.10 E. 520,302.21

LANDING POINT
 NAD'83 S.P.C.(FT) N. 470,803.7 E. 1,615,322.4
 NAD'83 GEO. LAT-(N) 39.785813 LONG-(W) 80.756808
 NAD'83 UTM (M) N. 4,404,013.3 E. 520,823.6

BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 464,043.1 E. 1,619,126.0
 NAD'83 GEO. LAT-(N) 39.767400 LONG-(W) 80.742941
 NAD'83 UTM (M) N. 4,401,973.0 E. 522,016.8



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

P.S. 849 *C. Victor Moyers*

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE WW-6A1)

SCALE 1" = 2000' FILE NO. 8796P13HMR.dwg
 OLD CROW NORTH 13HM REV0
 DATE JUNE 22, 2018
 REVISED OCTOBER 23, 2018
 OPERATORS WELL NO. OLD CROW S-13HM
 API WELL NO. 47-051-02168
 STATE COUNTY PERMIT

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

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

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

DESIGNATED AGENT

COUNTY NAME PERMIT