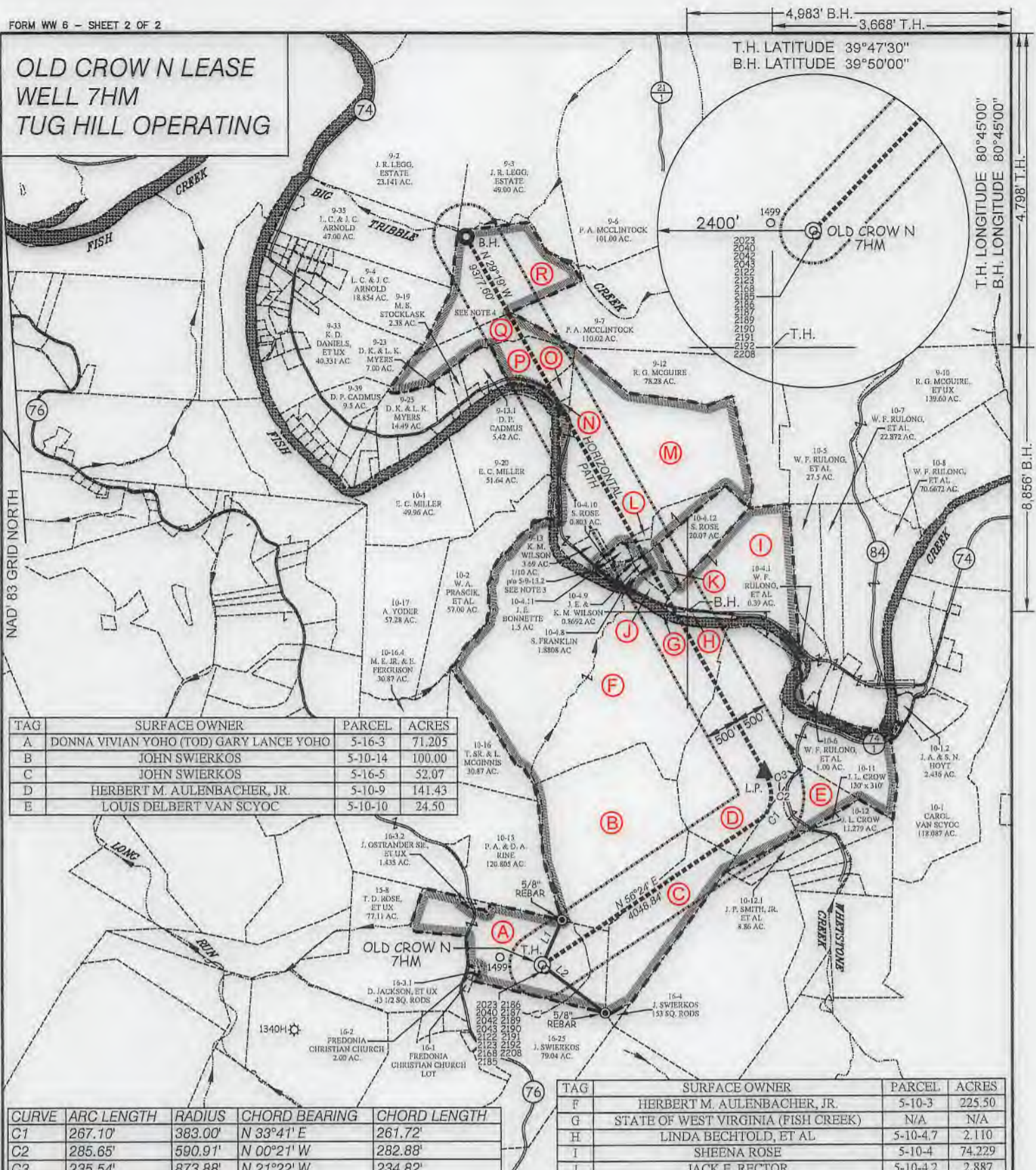


**OLD CROW N LEASE
WELL 7HM
TUG HILL OPERATING**



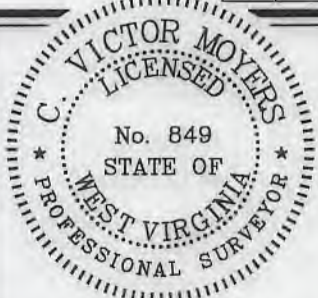
TAG	SURFACE OWNER	PARCEL	ACRES
A	DONNA VIVIAN YOHO (TOD) GARY LANCE YOHO	5-16-3	71.205
B	JOHN SWIERKOS	5-10-14	100.00
C	JOHN SWIERKOS	5-16-5	52.07
D	HERBERT M. AULENBACHER, JR.	5-10-9	141.43
E	LOUIS DELBERT VAN SCYOC	5-10-10	24.50

TAG	SURFACE OWNER	PARCEL	ACRES
F	HERBERT M. AULENBACHER, JR.	5-10-3	225.50
G	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
H	LINDA BECHTOLD, ET AL	5-10-4.7	2,110
I	SHEENA ROSE	5-10-4	74.229
J	JACK E. RECTOR	5-10-4.2	2,887
K	ANTHONY A. & KAREN L. ANKROM	5-10-4.3	5,697
L	SHEENA ROSE	5-9-16	1.65
M	JASON J. STEED	5-9-13.2	135.61
N	DENNIS P. CADMUS	5-9-14	136 POLES
O	DENNIS P. CADMUS	5-9-15	3.85
P	DENNIS P. CADMUS	5-9-17	28,063
Q	DENNIS P. CADMUS	5-9-24	21 AC 49 P.
R	LLOYD C. & JUDITH C. ARNOLD	5-9-41	93.00

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	267.10'	383.00'	N 33°41' E	261.72'
C2	285.65'	590.91'	N 00°21' W	282.88'
C3	235.54'	873.88'	N 21°22' W	234.82'

LINE	BEARING	DISTANCE
L1	N 23°38' E	757.90'
L2	S 52°51' E	1216.06'

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www.slsww.com



(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 468,162.89 E. 1,613,530.67
 NAD'83 GEO. LAT-(N) 39.778495 LONG-(W) 80.763051
 NAD'83 UTM (M) N. 4,403,199.66 E. 520,291.14
LANDING POINT
 NAD'83 S.P.C.(FT) N. 471,122.6 E. 1,616,961.1
 NAD'83 GEO. LAT-(N) 39.786752 LONG-(W) 80.750993
 NAD'83 UTM (M) N. 4,404,118.8 E. 521,321.2
BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 479,299.9 E. 1,612,370.6
 NAD'83 GEO. LAT-(N) 39.809022 LONG-(W) 80.767737
 NAD'83 UTM (M) N. 4,406,586.7 E. 519,981.0

SCALE 1" = 2000' FILE NO. 8796P7HM.dwg
 OLD CROW NORTH 7HM REV1
 DATE MAY 28, 2019
 REVISED _____, 20____
 OPERATORS WELL NO. OLD CROW N-7HM
 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.

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)

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

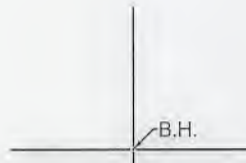
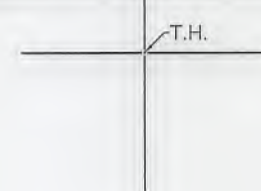
COUNTY NAME
 PERMIT

**OLD CROW N LEASE
WELL 7HM
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. 468,162.89	E. 1,613,530.67
NAD'83 GEO.	LAT-(N) 39.778495	LONG-(W) 80.763051
NAD'83 UTM (M)	N. 4,403,199.66	E. 520,291.14
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 471,122.6	E. 1,616,961.1
NAD'83 GEO.	LAT-(N) 39.786752	LONG-(W) 80.750993
NAD'83 UTM (M)	N. 4,404,118.8	E. 521,321.2
BOTTOM HOLE		
NAD'83 S.P.C.(FT)	N. 479,299.9	E. 1,612,970.6
NAD'83 GEO.	LAT-(N) 39.809022	LONG-(W) 80.767737
NAD'83 UTM (M)	N. 4,406,586.7	E. 519,881.0

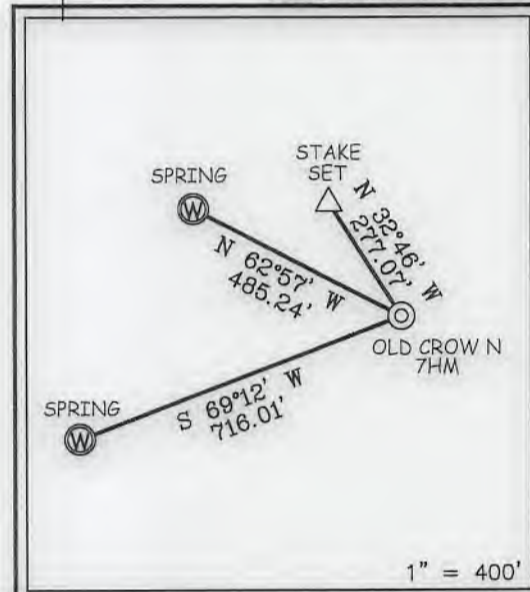
T.H. LONGITUDE 80°45'00"
B.H. LONGITUDE 80°45'00"
4,798' T.H.
8,856' B.H.



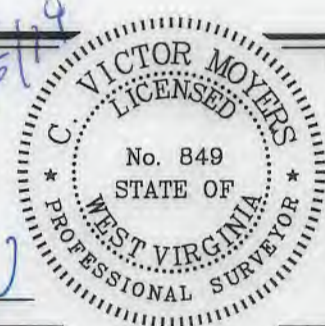
NOTES ON SURVEY

- 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'
- THE ASSESSMENT OF THE 1/10 ACRE LOT, OWNED BY JASON J. STEED AND DESCRIBED AS THE SECOND PARCEL IN DEED BOOK 843 PAGE 319 AND CORRECTIVE DEED 843 PAGE 300, IS NOT CURRENTLY ACCOUNTED FOR WITHIN THE 135.61 ACRE ASSESSMENT OF SURFACE TAX MAP 5-9-13.2
- TAX MAPS AND TAX ASSESSMENTS FOR PARCELS 5-9-4, 5-9-35 AND 5-9-41 DO NOT APPEAR TO CORRECTLY DEPICT PARCEL BOUNDARIES AND/OR ACREAGES AS DESCRIBED IN THEIR RESPECTIVE DEEDS.

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 MAY 28, 20 19
REVISED _____, 20 ____
OPERATORS WELL NO. OLD CROW N-7HM
API WELL NO. 47 - 51 - 02239
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8796P7HM.dwg
OLD CROW NORTH 7HM REV1
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK) SCALE 1" = 2000'

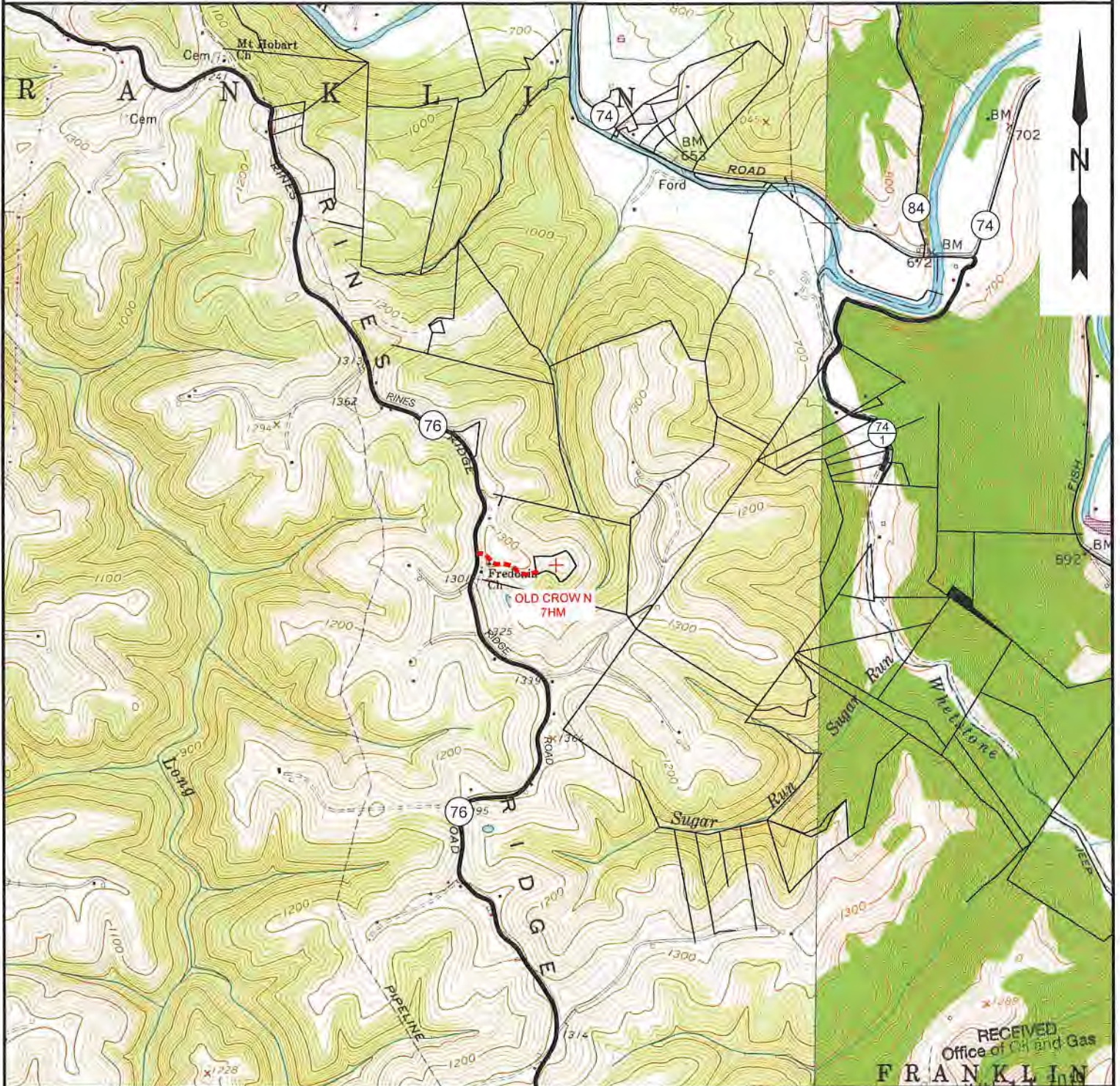
STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: GROUND = 1,287.60' 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 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 MARCELLUS
ESTIMATED DEPTH TVD: 6,727' / TMD: 18,041'

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

COUNTY NAME
PERMIT

PROPOSED OLD CROWN - 7HM



RECEIVED
Office of Oil and Gas
FRANKLIN
JUN 11 2019

NOTE: CLOSEST WATER PURVEYOR
GRANDVIEW - DOOLIN PUBLIC SERVICE DISTRICT
PROCTOR, WV

LAT: 39.7137712
LON: -80.8258327
LOCATED: S 37°39'00" W AT 29,404.13' FROM OLD CROWN PAD LOCATION

WV Department of
Environmental Protection

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www.slsurveys.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON & POWHATAN POINT 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	FRANKLIN	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8796	05/29/19	1" = 2000'



TUG HILL
OPERATING