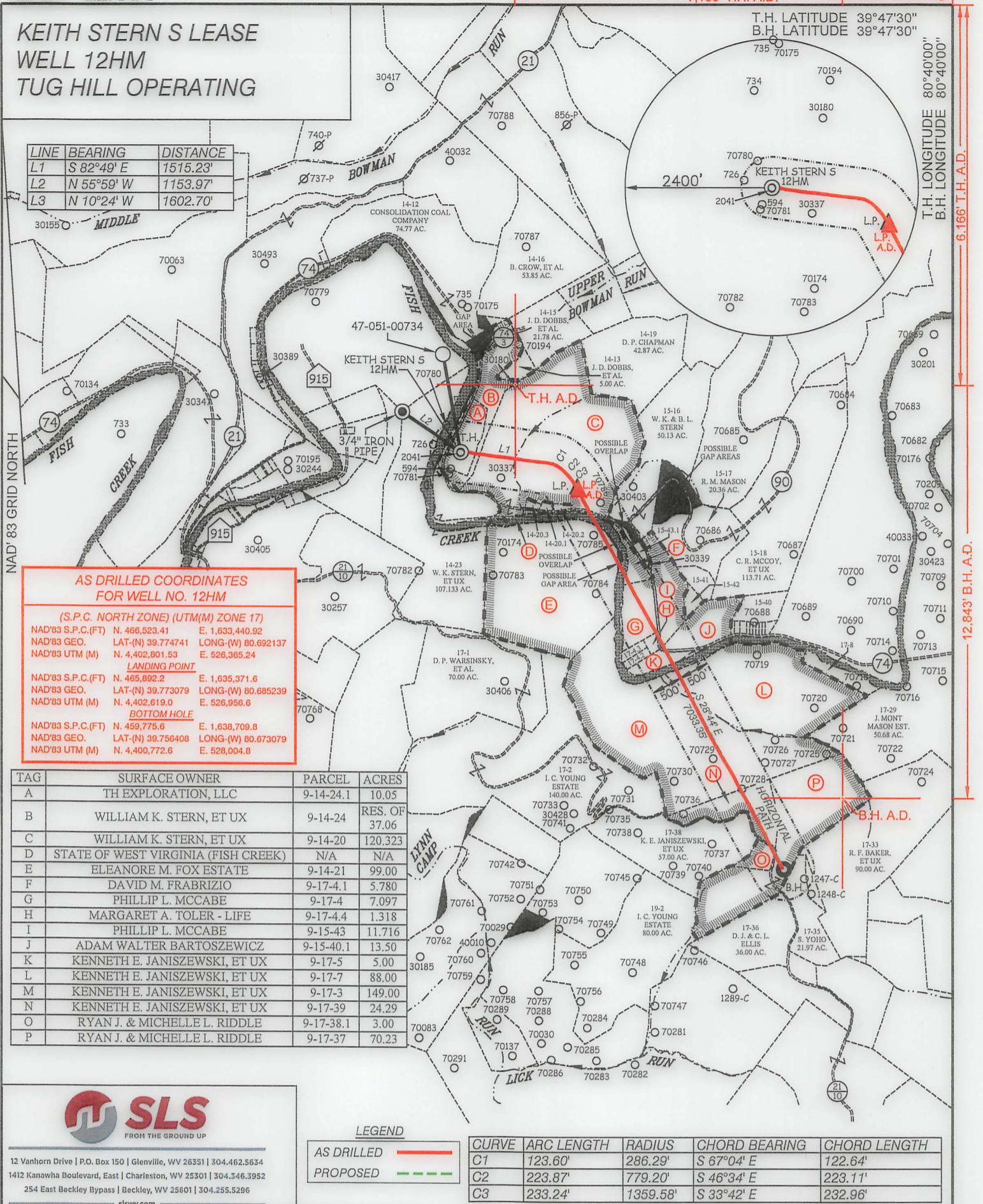


**KEITH STERN S LEASE
WELL 12HM
TUG HILL OPERATING**

LINE	BEARING	DISTANCE
L1	S 82°49' E	1515.23'
L2	N 55°59' W	1153.97'
L3	N 10°24' W	1602.70'

NAD '83 GRID NORTH



**AS DRILLED COORDINATES
FOR WELL NO. 12HM**

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

NAD'83 S.P.C.(FT)	N. 466,523.41	E. 1,633,440.92
NAD'83 GEO.	LAT-(N) 39.774741	LONG-(W) 80.692137
NAD'83 UTM (M)	N. 4,402,801.53	E. 526,365.24

LANDING POINT

NAD'83 S.P.C.(FT)	N. 465,892.2	E. 1,635,371.6
NAD'83 GEO.	LAT-(N) 39.773079	LONG-(W) 80.685239
NAD'83 UTM (M)	N. 4,402,619.0	E. 526,956.6

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 459,775.6	E. 1,638,709.8
NAD'83 GEO.	LAT-(N) 39.756408	LONG-(W) 80.673079
NAD'83 UTM (M)	N. 4,400,772.6	E. 528,004.8

TAG	SURFACE OWNER	PARCEL	ACRES
A	TH EXPLORATION, LLC	9-14-24.1	10.05
B	WILLIAM K. STERN, ET UX	9-14-24	RES. OF 37.06
C	WILLIAM K. STERN, ET UX	9-14-20	120.323
D	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
E	ELEANORE M. FOX ESTATE	9-14-21	99.00
F	DAVID M. FRABRIZIO	9-17-4.1	5.780
G	PHILLIP L. MCCABE	9-17-4	7.097
H	MARGARET A. TOLER - LIFE	9-17-4.4	1.318
I	PHILLIP L. MCCABE	9-15-43	11.716
J	ADAM WALTER BARTOSZEWICZ	9-15-40.1	13.50
K	KENNETH E. JANISZEWSKI, ET UX	9-17-5	5.00
L	KENNETH E. JANISZEWSKI, ET UX	9-17-7	88.00
M	KENNETH E. JANISZEWSKI, ET UX	9-17-3	149.00
N	KENNETH E. JANISZEWSKI, ET UX	9-17-39	24.29
O	RYAN J. & MICHELLE L. RIDDLE	9-17-38.1	3.00
P	RYAN J. & MICHELLE L. RIDDLE	9-17-37	70.23



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
 slsww.com

LEGEND

AS DRILLED	
PROPOSED	

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	123.60'	286.29'	S 67°04' E	122.64'
C2	223.87'	779.20'	S 46°34' E	223.11'
C3	233.24'	1359.58'	S 33°42' E	232.96'

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

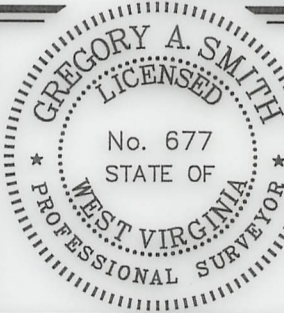
NAD'83 S.P.C.(FT)	N. 466,523.41	E. 1,633,440.92
NAD'83 GEO.	LAT-(N) 39.774741	LONG-(W) 80.692137
NAD'83 UTM (M)	N. 4,402,801.53	E. 526,365.24

LANDING POINT

NAD'83 S.P.C.(FT)	N. 465,938.9	E. 1,635,348.5
NAD'83 GEO.	LAT-(N) 39.773206	LONG-(W) 80.685324
NAD'83 UTM (M)	N. 4,402,633.2	E. 526,949.4

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 459,771.2	E. 1,638,728.9
NAD'83 GEO.	LAT-(N) 39.756397	LONG-(W) 80.673011
NAD'83 UTM (M)	N. 4,400,771.4	E. 528,010.6



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

P.S. 677

Gregory A. Smith

LEGEND

LEASE LINE	
SURFACE LINE	
WELL LATERAL	
OFFSET LINE	
TIE LINE	
CREEK	
ROAD	
COUNTY ROUTE	
PROPOSED WELL	
EXISTING WELL	
PERMITTED WELL	
TAX MAP-PARCEL	00-00
LEASE # (SEE WW-6A1)	
SURFACE OWNER (SEE TABLE)	

COUNTY NAME
PERMIT

SCALE 1" = 2000' FILE NO. 8811P12HMv2-AD.dwg

DATE FEBRUARY 15, 20 23
 REVISED _____, 20 ____
 OPERATORS WELL NO. KEITH STERN S-12HM
 API WELL NO. 47 — 051 — 02104
 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 DARREN BROWN - CT CORPORATION
 ADDRESS 5098 WASHINGTON ST. W, STE 407
 CHARLESTON, WV 25313-1561

7,159' T.H. A.D. 1,803' B.H. A.D.

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

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

6,166' T.H. A.D. 12,843' B.H. A.D.

12/08/2023

**KEITH STERN S LEASE
WELL 12HM
TUG HILL OPERATING**

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

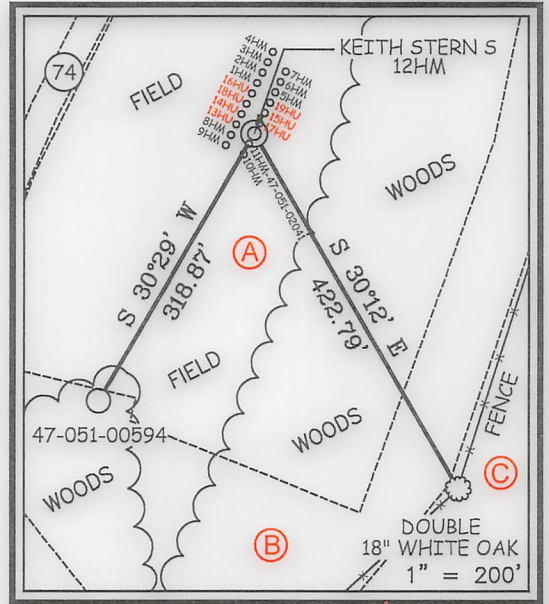
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NAD'83 UTM (M)	N. 4,400,771.4	E. 528,010.6

TAX MAP/PCL	ADJOINING SURFACE OWNER	ACRES
14-20.1	WILLIAM K. STERN, ET UX	1.321
14-20.2	WILLIAM K. STERN, ET UX	1.525
14-20.3	WILLIAM K. STERN, ET UX	0.831
15-40	ROBERT WILLIAM BERISFORD	13.50
15-41	CHARLES RICHARD MCCOY, ET UX	4.50
15-42	ROBERT MATHEW MASON	2.63
15-43.1	MARGARET A. TOLER - LIFE, ET AL	3.284
17-4.2	RICKY E. DAVIS	1.301
17-4.3	SYLVIA JEAN NEEHOUSE	1.329
17-8	KEN & SUSAN JANISZEWSKI	6.00

7,159' T.H. A.D. 1,803' B.H.A.D. 80°40'00" T.H. LONGITUDE 80°40'00" B.H. LONGITUDE 6.166' T.H. A.D. 12.843' B.H. A.D.

REFERENCES



NOTES ON SURVEY

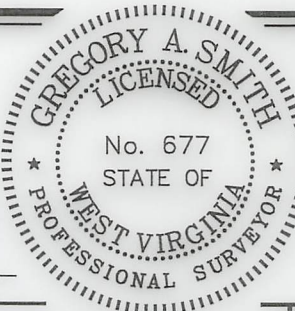
- NO WATER WELLS WERE FOUND WITHIN 250' OF PROPOSED GAS WELL. NO AGRICULTURAL BUILDINGS OR DWELLINGS > 2500 SQ. FT. WERE FOUND WITHIN 625' OF THE CENTER OF PROPOSED WELL PAD.
- WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
- PLAT UPDATED TO SHOW AS-DRILLED PATH.
- AS DRILLED DATA PROVIDED BY TUG HILL OPERATING.



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254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5296
slsw.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. 677 *Gregory A. Smith*



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE FEBRUARY 15, 20 23
REVISED _____, 20 ____
OPERATORS WELL NO. KEITH STERN S-12HM
API WELL NO. 47 - 051 - 02104
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P12HMv2-AD.dwg
SCALE 1" = 2000'
HORIZONTAL & VERTICAL CONTROL DETERMINED BY DGPS (SURVEY GRADE TIE TO CORS NETWORK)

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



WELL TYPE: OIL _____ GAS X INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP _____ SHALLOW X

LOCATION: GROUND = 742.90' PROPOSED = 744.65' WATERSHED FISH CREEK (HUC 10)
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER TH EXPLORATION, LLC ACREAGE 10.05±
ROYALTY OWNER ISAAC CROW, ET AL - SEE WW-6A1 ACREAGE 10.05±

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 MARCELLUS ESTIMATED DEPTH TVD: 6,412' / TMD: 14,022'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DARREN BROWN - CT CORPORATION
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS 5098 WASHINGTON ST. W, STE 407
FORT WORTH, TX 76107 CHARLESTON, WV 25313-1561

COUNTY NAME PERMIT