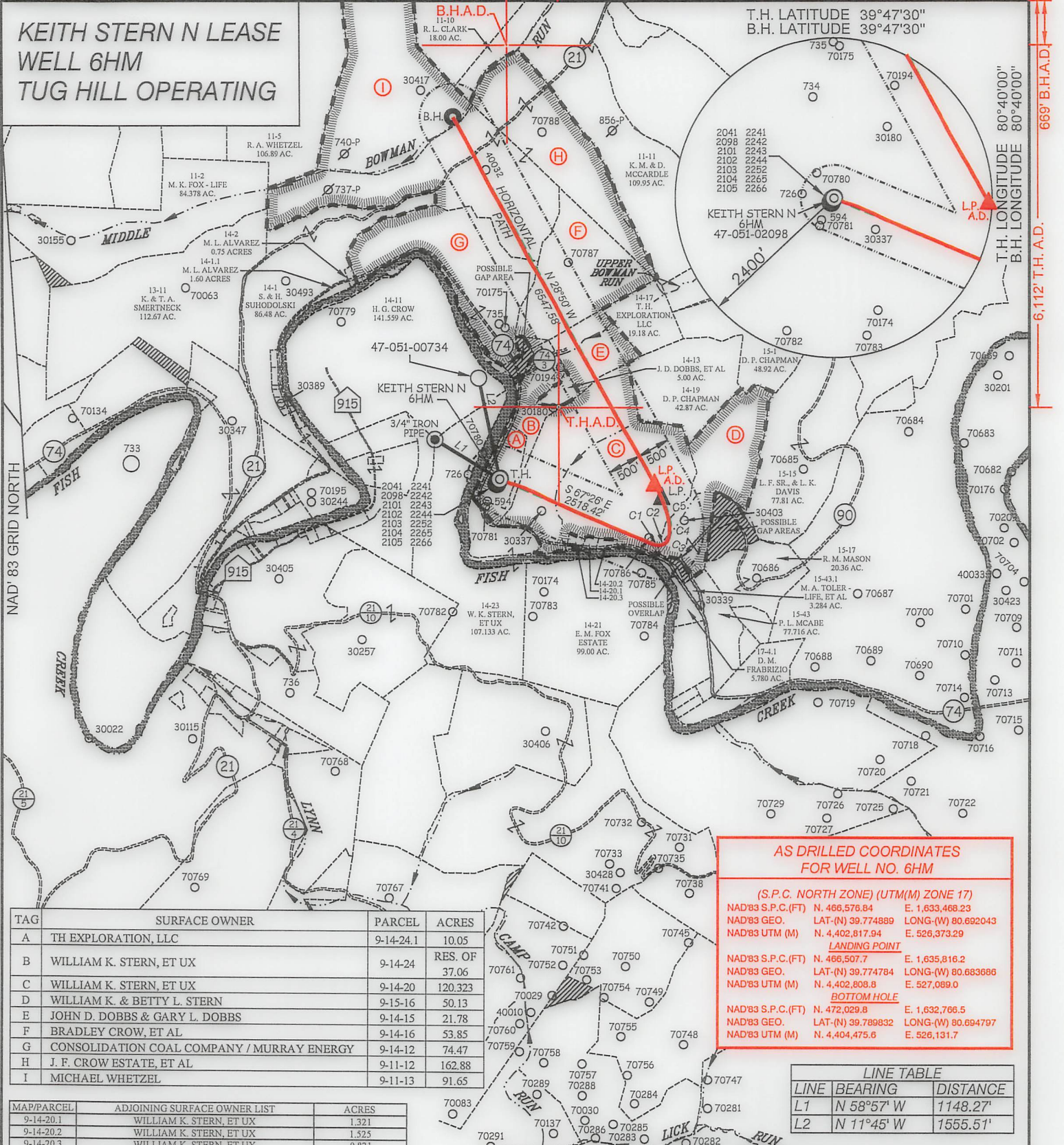


**KEITH STERN N LEASE  
WELL 6HM  
TUG HILL OPERATING**



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	WILLIAM K. & BETTY L. STERN	9-15-16	50.13
E	JOHN D. DOBBS & GARY L. DOBBS	9-14-15	21.78
F	BRADLEY CROW, ET AL	9-14-16	53.85
G	CONSOLIDATION COAL COMPANY / MURRAY ENERGY	9-14-12	74.47
H	J. F. CROW ESTATE, ET AL	9-11-12	162.88
I	MICHAEL WHETZEL	9-11-13	91.65

MAP/PARCEL	ADJOINING SURFACE OWNER LIST	ACRES
9-14-20.1	WILLIAM K. STERN, ET UX	1.321
9-14-20.2	WILLIAM K. STERN, ET UX	1.525
9-14-20.3	WILLIAM K. STERN, ET UX	0.831

**AS DRILLED COORDINATES FOR WELL NO. 6HM**

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

NAD'83 S.P.C.(FT)	N. 466,576.84	E. 1,633,468.23
NAD'83 GEO.	LAT-(N) 39.774889	LONG-(W) 80.692043
NAD'83 UTM (M)	N. 4,402,817.94	E. 526,373.29

**LANDING POINT**

NAD'83 S.P.C.(FT)	N. 466,507.7	E. 1,635,816.2
NAD'83 GEO.	LAT-(N) 39.774784	LONG-(W) 80.683686
NAD'83 UTM (M)	N. 4,402,808.8	E. 527,089.0

**BOTTOM HOLE**

NAD'83 S.P.C.(FT)	N. 472,029.8	E. 1,632,766.5
NAD'83 GEO.	LAT-(N) 39.789832	LONG-(W) 80.694797
NAD'83 UTM (M)	N. 4,404,475.6	E. 526,131.7

**LINE TABLE**

LINE	BEARING	DISTANCE
L1	N 58°57' W	1148.27'
L2	N 11°45' W	1555.51'

**CURVE TABLE**

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	106.69'	237.27'	S 80°18' E	105.79'
C2	89.96'	146.81'	N 68°37' E	88.56'
C3	125.67'	210.61'	N 30°31' E	123.82'
C4	250.76'	569.65'	N 00°03' W	248.74'
C5	343.61'	1169.81'	N 20°44' W	342.38'



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  
 slswv.com

**LEGEND**

AS DRILLED ——— (Red line)  
 PROPOSED - - - - - (Dashed green line)



(+) 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) (A)  
 SURFACE OWNER (SEE TABLE)

COUNTY NAME  
 PERMIT

SCALE 1" = 2000' FILE NO. 8811P6HMR2-AD.dwg  
 KEITH STERN N-6HM-REV3  
 DATE FEBRUARY 15, 2023  
 OPERATORS WELL NO. KEITH STERN N-6HM  
 API WELL NO. 47-051-02098  
 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

09/22/2023



**KEITH STERN N LEASE  
WELL 6HM  
TUG HILL OPERATING**

B.H.A.D.

7,905' B.H. A.D.

7,132' T.H. A.D.

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

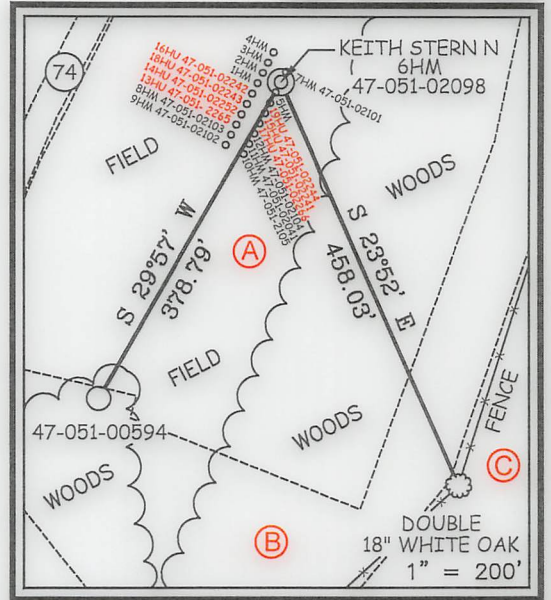
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17)		
NAD'83 S.P.C.(FT)	N. 466,576.84	E. 1,633,468.23
NAD'83 GEO.	LAT-(N) 39.774889	LONG-(W) 80.692043
NAD'83 UTM (M)	N. 4,402,817.94	E. 526,373.29
<u>LANDING POINT</u>		
NAD'83 S.P.C.(FT)	N. 466,300.7	E. 1,635,922.1
NAD'83 GEO.	LAT-(N) 39.774220	LONG-(W) 80.683300
NAD'83 UTM (M)	N. 4,402,746.3	E. 527,122.3
<u>BOTTOM HOLE</u>		
NAD'83 S.P.C.(FT)	N. 472,036.2	E. 1,632,763.8
NAD'83 GEO.	LAT-(N) 39.789850	LONG-(W) 80.694807
NAD'83 UTM (M)	N. 4,404,477.6	E. 526,130.9

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

669' B.H.A.D.

T.H.A.D.

**REFERENCES**



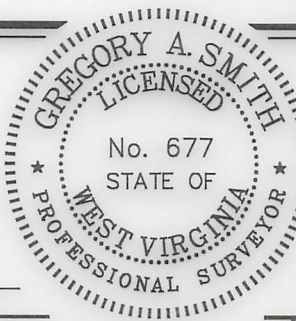
**NOTES ON SURVEY**

1. 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.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'.
3. PLAT UPDATED TO SHOW AS-DRILLED PATH.
4. AS DRILLED DATA PROVIDED BY TUG HILL OPERATING.



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  
slsvv.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 \_\_\_\_\_

OPERATORS WELL NO. KEITH STERN N-6HM

API WELL NO. 47 - 051 - 02098  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P6HMR2-AD.dwg  
KEITH STERN N-6HM-REV3  
HORIZONTAL & VERTICAL SCALE 1" = 2000'  
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 = 741.50' ELEVATION 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: 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: 6,416' / TMD: 14,107'

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

COUNTY NAME PERMIT

09/22/2023