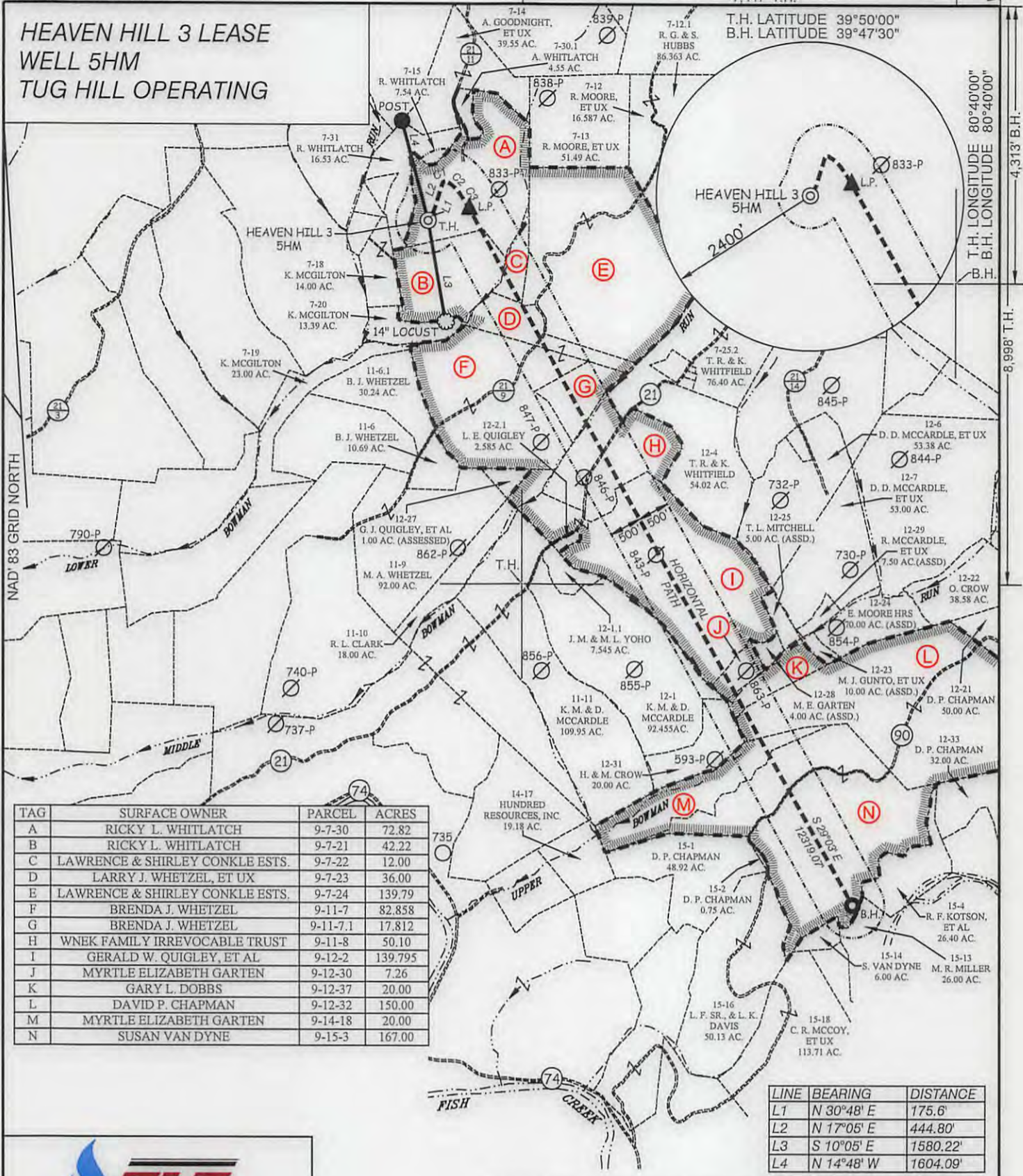


**HEAVEN HILL 3 LEASE
WELL 5HM
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°47'30"

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

8,998' T.H.



TAG	SURFACE OWNER	PARCEL	ACRES
A	RICKY L. WHITLATCH	9-7-30	72.82
B	RICKY L. WHITLATCH	9-7-21	42.22
C	LAWRENCE & SHIRLEY CONKLE ESTS.	9-7-22	12.00
D	LARRY J. WHETZEL, ET UX	9-7-23	36.00
E	LAWRENCE & SHIRLEY CONKLE ESTS.	9-7-24	139.79
F	BRENDA J. WHETZEL	9-11-7	82.858
G	BRENDA J. WHETZEL	9-11-7.1	17.812
H	WNEK FAMILY IRREVOCABLE TRUST	9-11-8	50.10
I	GERALD W. QUIGLEY, ET AL	9-12-2	139.795
J	MYRTLE ELIZABETH GARTEN	9-12-30	7.26
K	GARY L. DOBBS	9-12-37	20.00
L	DAVID P. CHAPMAN	9-12-32	150.00
M	MYRTLE ELIZABETH GARTEN	9-14-18	20.00
N	SUSAN VAN DYNE	9-15-3	167.00

LINE	BEARING	DISTANCE
L1	N 30°48' E	175.6'
L2	N 17°05' E	444.80'
L3	S 10°05' E	1580.22'
L4	N 14°48' W	1604.09'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	90.39'	48.54'	N 62°56' E	77.88'
C2	244.61'	522.11'	S 48°58' E	242.38'
C3	316.03'	1917.03'	S 33°35' E	315.68'

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)		
NAD'83 S.P.C.(FT)	N. 478,871.18	E. 1,633,313.44
NAD'83 GEO.	LAT-(N) 39.808633	LONG-(W) 80.693174
NAD'83 UTM (M)	N. 4,406,562.70	E. 526,263.54
LANDING POINT		
NAD'83 S.P.C.(FT)	N. 479,060.5	E. 1,633,960.8
NAD'83 GEO.	LAT-(N) 39.809176	LONG-(W) 80.690879
NAD'83 UTM (M)	N. 4,406,623.7	E. 526,459.8
BOTTOM HOLE		
NAD'83 S.P.C.(FT)	N. 468,290.5	E. 1,639,941.2
NAD'83 GEO.	LAT-(N) 39.779827	LONG-(W) 80.669094
NAD'83 UTM (M)	N. 4,403,373.0	E. 528,336.6

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

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL
- LEASE # (SEE PGS. 3,4,5,6,7,8,9)
- SURFACE OWNER (SEE TABLE)

SCALE 1" = 2000' FILE NO. 8654P5HM.dwg

DATE JUNE 30, 20 17

REVISED _____, 20 _____

OPERATORS WELL NO. HEAVEN HILL 3-5HM

API WELL NO. 47-051-01948

NO. STATE COUNTY PERMIT

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

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

69/15/2017

7,447' T.H.

B.H. 682'

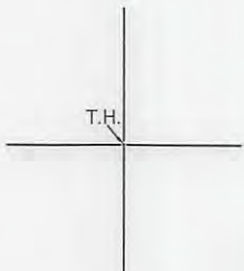
**HEAVEN HILL 3 LEASE
WELL 5HM
TUG HILL OPERATING**

T.H. LATITUDE 39°50'00"
B.H. LATITUDE 39°47'30"

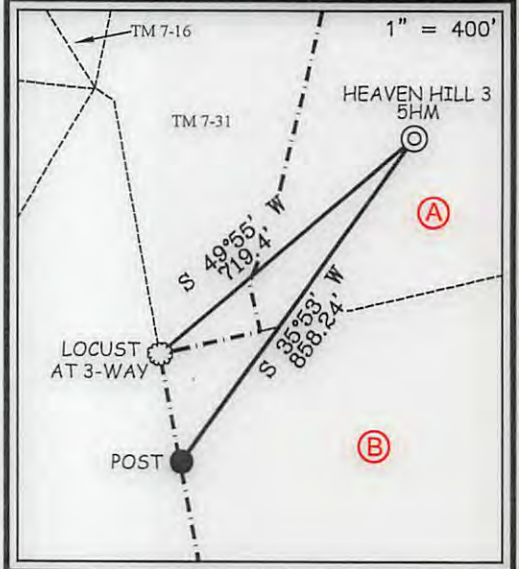
T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"

8,998' T.H.

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)		
NAD'83 S.P.C.(FT)	N. 478,871.18	E. 1,633,313.44
NAD'83 GEO.	LAT-(N) 39.808633	LONG-(W) 80.693174
NAD'83 UTM (M)	N. 4,406,562.70	E. 526,263.54
<u>LANDING POINT</u>		
NAD'83 S.P.C.(FT)	N. 479,060.5	E. 1,633,960.8
NAD'83 GEO.	LAT-(N) 39.809176	LONG-(W) 80.690879
NAD'83 UTM (M)	N. 4,406,623.7	E. 526,459.8
<u>BOTTOM HOLE</u>		
NAD'83 S.P.C.(FT)	N. 468,290.5	E. 1,639,941.2
NAD'83 GEO.	LAT-(N) 39.779827	LONG-(W) 80.669094
NAD'83 UTM (M)	N. 4,403,373.0	E. 528,336.6



REFERENCES



NOTES ON SURVEY

1. 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.
2. WELL SPOT CIRCLE & TOPO MARK SCALE IS 1"=2000'

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26351 • (304) 462-5634
www.slsurveys.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 JUNE 30, 20 17
REVISED _____, 20 ____
OPERATORS WELL NO. HEAVEN HILL 3-5HM
API WELL NO. 47 - 051 - 01948
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8654P5HM.dwg
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 <u>X</u>	LIQUID INJECTION _____	WASTE DISPOSAL _____	IF "GAS" PRODUCTION <u>X</u>	STORAGE _____	DEEP _____	SHALLOW <u>X</u>		
LOCATION:	GROUND = 1,342.20' ELEVATION PROPOSED = 1,326.35' WATERSHED LOWER BOWMAN RUN OF FISH CREEK (HUC 10)									
DISTRICT:	MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'									
SURFACE OWNER:	RICKY L. WHITLATCH ACREAGE 72.82±									
ROYALTY OWNER:	RICKY L. WHITLATCH, ET AL - SEE PGS. 3,4,5,6,7,8 & 9 ACREAGE 72.82±									
PROPOSED WORK:	LEASE NO. SEE PGS. 3,4,5,6,7,8 & 9									
DRILL:	<u>X</u>	CONVERT _____	DRILL DEEPER _____	REDRILL _____	FRACTURE OR STIMULATE <u>X</u>	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: 6,876' / TMD: 19,512'									

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

09/15/2017