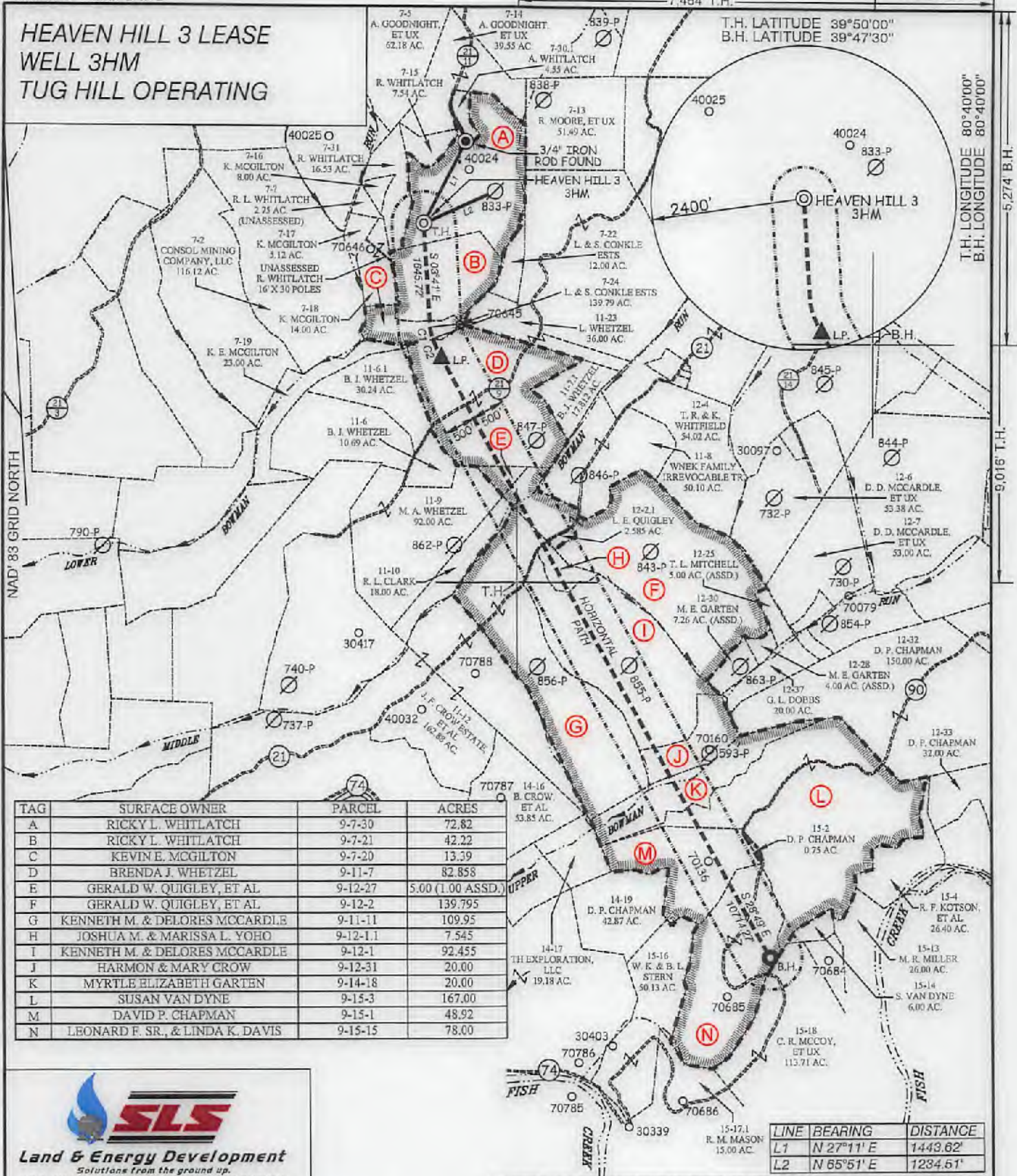


**HEAVEN HILL 3 LEASE
WELL 3HM
TUG HILL OPERATING**



TAG	SURFACE OWNER	PARCEL	ACRES
A	RICKY L. WHITLATCH	9-7-30	72.82
B	RICKY L. WHITLATCH	9-7-21	42.22
C	KEVIN E. MCGILTON	9-7-20	13.39
D	BRENDA J. WHETZEL	9-11-7	82.858
E	GERALD W. QUIGLEY, ET AL	9-12-27	5.00 (1.00 ASSD)
F	GERALD W. QUIGLEY, ET AL	9-12-2	139.795
G	KENNETH M. & DELORES MCCARDLE	9-11-11	109.95
H	JOSHUA M. & MARISSA L. YOHO	9-12-11	7.545
I	KENNETH M. & DELORES MCCARDLE	9-12-1	92.455
J	HARMON & MARY CROW	9-12-31	20.00
K	MYRTLE ELIZABETH GARTEN	9-14-18	20.00
L	SUSAN VAN DYNE	9-15-3	167.00
M	DAVID P. CHAPMAN	9-15-1	48.92
N	LEONARD F. SR., & LINDA K. DAVIS	9-15-15	78.00

LINE	BEARING	DISTANCE
L1	N 27°11' E	1443.62'
L2	N 65°51' E	1234.61'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	184.52'	758.84'	S 13°43' E	184.00'
C2	330.22'	2157.44'	S 24°39' E	329.90'

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhook Drive • Glenville, WV 26035 • (304) 402-5034
www.slsurveys.com



P.S. 677
Gregory A. Smith

(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)
 NAD'83 S.P.C.(FT) N. 476,953.76 E. 1,633,296.29
 NAD'83 GEO. LAT-(N) 39.908584 LONG-(W) 80.693234
 NAD'83 UTM (M) N. 4,406,557.30 E. 526,256.41
LANDING POINT
 NAD'83 S.P.C.(FT) N. 476,782.8 E. 1,633,583.5
 NAD'83 GEO. LAT-(N) 39.902773 LONG-(W) 80.692112
 NAD'83 UTM (M) N. 4,406,912.8 E. 526,359.7
BOTTOM HOLE
 NAD'83 S.P.C.(FT) N. 467,344.8 E. 1,638,748.6
 NAD'83 GEO. LAT-(N) 39.777168 LONG-(W) 80.673209
 NAD'83 UTM (M) N. 4,403,078.8 E. 527,977.5

(+) 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 WW-8A1)
- SURFACE OWNER (SEE TABLE)

SCALE 1" = 2000' FILE NO. 8654P3HMR2.dwg
 DATE JUNE 30, 20 17
 REVISED FEBRUARY 2, 2018 & MARCH 22, 2018
 OPERATORS WELL NO. HEAVEN HILL 3-3HM
 API WELL NO. 47 - 051 - 01963
 NO. STATE COUNTY PERMIT

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

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

05/04/2018

HEAVEN HILL 3 LEASE
WELL 3HM
TUG HILL OPERATING

7,464' T.H. 1,864 B.H.

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

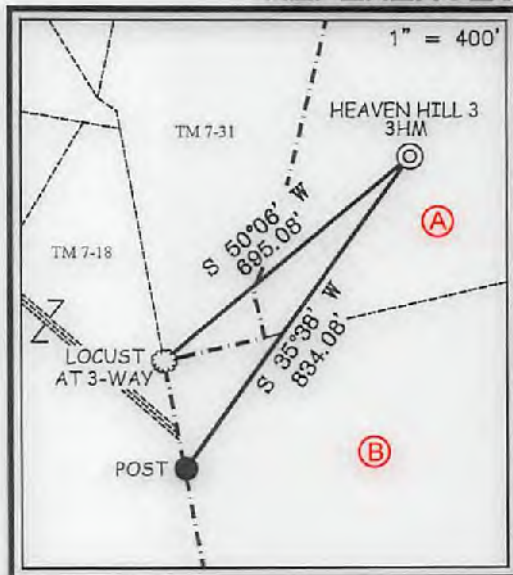
(S.P.C. NORTH ZONE) (UTM(M) ZONE 17 NORTH)			
NAD'83 S.P.C.(FT)	N. 476,853.76	E. 1,633,296.29	
NAD'83 GEO.	LAT-(N) 39.808584	LONG-(W) 80.693234	
NAD'83 UTM (M)	N. 4,406,557.30	E. 526,258.41	
LANDING POINT			
NAD'83 S.P.C.(FT)	N. 476,732.8	E. 1,633,583.5	
NAD'83 GEO.	LAT-(N) 39.802773	LONG-(W) 80.692112	
NAD'83 UTM (M)	N. 4,405,912.6	E. 526,356.7	
BOTTOM HOLE			
NAD'83 S.P.C.(FT)	N. 467,344.8	E. 1,638,746.8	
NAD'83 GEO.	LAT-(N) 39.777188	LONG-(W) 80.673299	
NAD'83 UTM (M)	N. 4,403,078.8	E. 527,977.5	

T.H. LONGITUDE 80°40'00"
B.H. LONGITUDE 80°40'00"
5,274' B.H.
9,016' T.H.

B.H.

T.H.

REFERENCES



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 IS 1"=2000'



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.

3/25/18



P.S. 677 *Gregory A. Smith*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE JUNE 30, 20 17
REVISED FEBRUARY 2, 2018 & MARCH 22, 2018
OPERATORS WELL NO. HEAVEN HILL 3-3HM
API WELL NO. 47-051-01963
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8654P3HMR2.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 LIQUID INJECTION WASTE DISPOSAL IF "GAS" PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION GROUND = 1,343.0' 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 WW-6A1 ACREAGE 72.82±

PROPOSED WORK: 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: 6,876' / TMD: 18,165'

COUNTY NAME PERMIT

MOS

05/04/2018

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