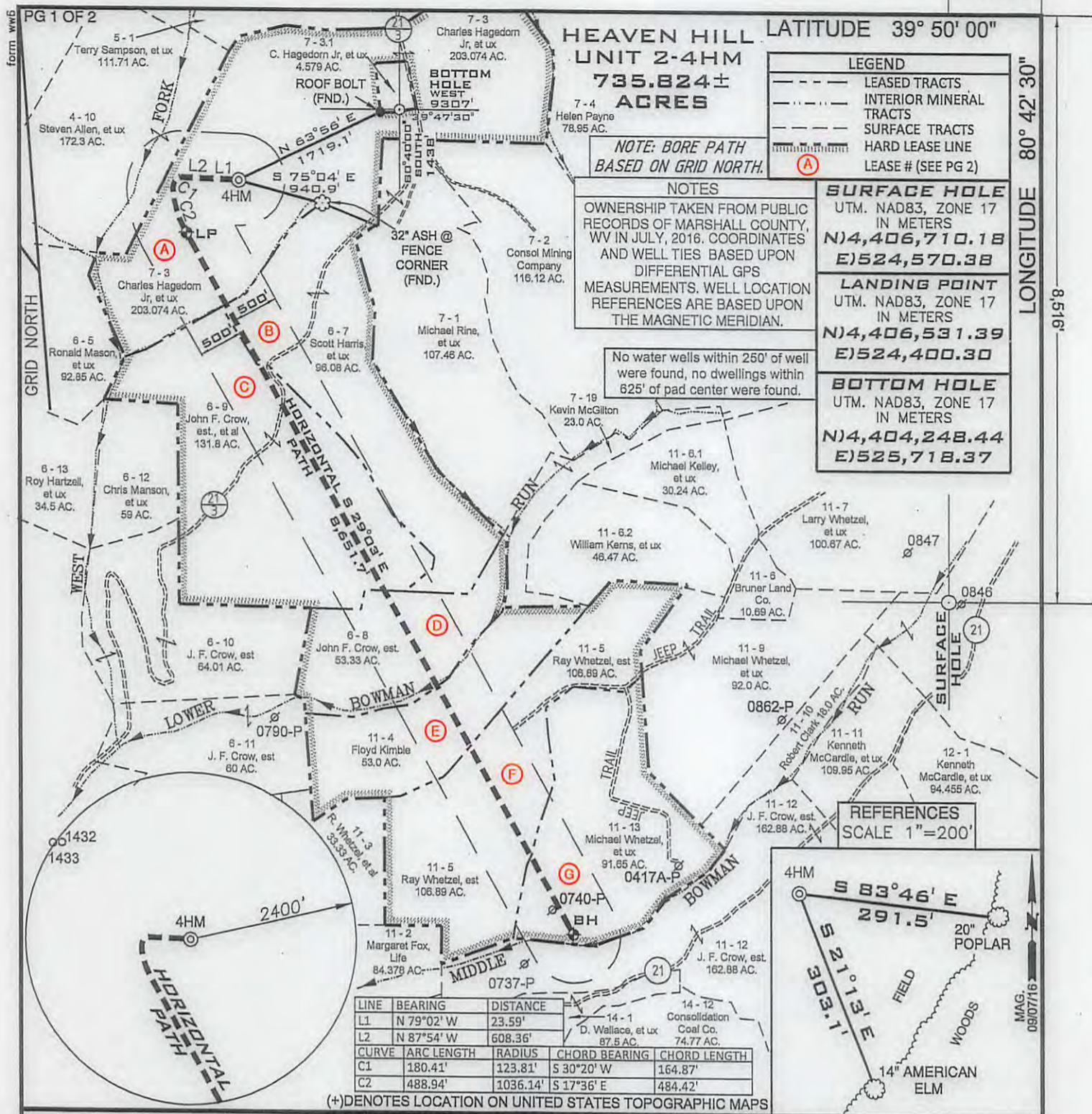


1,350'

LONGITUDE 80° 42' 30"

8,516'



HEAVEN HILL UNIT 2-4HM
735.824± ACRES

NOTE: BORE PATH BASED ON GRID NORTH.

LEGEND

- LEASED TRACTS
- - - INTERIOR MINERAL TRACTS
- - - SURFACE TRACTS
- ===== HARD LEASE LINE
- (A) LEASE # (SEE PG 2)

NOTES

OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN JULY, 2016. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.

SURFACE HOLE
UTM. NAD83, ZONE 17 IN METERS
N)4,406,710.18
E)524,570.38

LANDING POINT
UTM. NAD83, ZONE 17 IN METERS
N)4,406,531.39
E)524,400.30

BOTTOM HOLE
UTM. NAD83, ZONE 17 IN METERS
N)4,404,248.44
E)525,718.37

No water wells within 250' of well were found, no dwellings within 625' of pad center were found.

REFERENCES
SCALE 1"=200'

LINE	BEARING	DISTANCE
L1	N 79°02' W	23.59'
L2	N 87°54' W	608.36'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	180.41'	123.81'	S 30°20' W	164.87'
C2	488.94'	1036.14'	S 17°36' E	484.42'

(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

FILE NUMBER 163-697

DRAWING NUMBER HHU2_WP_4HM

SCALE 1" = 1500'

MINIMUM DEGREE OF ACCURACY 1/2500

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING
GRADE GPS

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S. 2122 *Jonathan N. White*



WVDEP
OFFICE OF OIL & GAS
601 57TH STREET, SE
CHARLESTON, WV 25304



DATE: DECEMBER 19, 2016

OPERATORS WELL NO. Heaven Hill Unit 2-4HM

API WELL NO. 47-051-01908 H6A

STATE WV COUNTY MARSHALL PERMIT 01908 H6A

LOCATION ELEVATION 1331' WATERSHED (HUC 10) FISH CREEK

DISTRICT MEADE COUNTY MARSHALL

QUADRANGLE GLEN EASTON 7.5' LEASE NUMBER SEE ATTACHED PG 2 OF 2

SURFACE OWNER CHARLES R. HAGEDORN, JR., ET UX ACREAGE 203.074

OIL & GAS ROYALTY OWNER CHARLES R. HAGEDORN, JR., ET AL LEASE ACREAGE 735.824

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY) _____

TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD 6,929' TMD:15,867'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER

ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107 ADDRESS 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

02/17/2017

COUNTY NAME
PERMIT

**HEAVEN HILL UNIT 2-4HM
WELL PLAT LEASE INFORMATION**

Lease No.	Tag	Parcel	OIL & GAS ROYALTY OWNER	Deed Book	Deed Page
10*15505	A	9-7-3	RALPH E. WELLMAN	686	412
10*15521	A	9-7-3	VENANGO 21ST CENTURY ENERGY INC	722	281
10*15608	A	9-7-3	CHARLES R HAGEDORN JR	816	423
10*47051.073.1	A	9-7-3	VENANGO 21ST CENTURY ENERGY INC	888	618
10*47051.073.2	A	9-7-3	PATRIOT RESTORATIONS LLC	908	541
10*47051.073.3	A	9-7-3	TRIENERGY HOLDINGS, LLC	878	330
10*47051.255.0	B	9-6-7	SCOTT C & CAROLYN R HARRIS	879	296
10*15510	C	9-6-9	ELAINE PHELPS ET VIR	718	326
10*15511	C	9-6-9	DAVID E CROW	718	376
10*15512	C	9-6-9	FRANCES COFFEY	718	378
10*15513	C	9-6-9	KAY KEYES	718	330
10*15514	C	9-6-9	L PAUL CROW	718	336
10*15515	C	9-6-9	DESIRE L CROW	718	334
10*15516	C	9-6-9	ROSE MARIE KIELGCZEWSKI	718	354
10*15517	C	9-6-9	DIANNE GELLNER & GARY GELLNER	718	345
10*15518	C	9-6-9	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	718	347
10*15519	C	9-6-9	JOHN CROW	726	580
10*15520	C	9-6-9	TIMOTHY CROW	726	582
10*47051.123.1	C	9-6-9	LLOYD G BAKER	865	389
10*47051.123.2	C	9-6-9	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	873	143
10*15510	D	9-6-8	ELAINE PHELPS ET VIR	718	326
10*15511	D	9-6-8	DAVID E CROW	718	376
10*15512	D	9-6-8	FRANCES COFFEY	718	378
10*15513	D	9-6-8	KAY KEYES	718	330
10*15514	D	9-6-8	L PAUL CROW	718	336
10*15515	D	9-6-8	DESIRE L CROW	718	334
10*15516	D	9-6-8	ROSE MARIE KIELGCZEWSKI	718	354
10*15517	D	9-6-8	DIANNE GELLNER & GARY GELLNER	718	345
10*15518	D	9-6-8	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	718	347
10*15519	D	9-6-8	JOHN CROW	726	580
10*15520	D	9-6-8	TIMOTHY CROW	726	582
10*47051.123.1	D	9-6-8	LLOYD G BAKER	865	389
10*47051.123.2	D	9-6-8	JAMES P HOLLIDAY AND JACQUELINE HOLLIDAY	873	143
10*16517	E	9-11-4	RHDK INVESTMENTS	907	550
10*15584	F	9-11-5	VICKIE MASON	686	239
10*15585	F	9-11-5	SHARON L WHETZAL	687	147
10*15586	F	9-11-5	MARY A SOUTH	690	615
10*15587	F	9-11-5	ROBERT L WHETZAL	690	559
10*15588	F	9-11-5	RAY A WHETZAL JR	690	559
10*15589	F	9-11-5	MARK L WHETZAL	693	576
10*47051.108.1	F	9-11-5	MICHAEL A WHETZEL	724	8
10*47051.108.5	F	9-11-5	BRENDA J WHETZEL	724	8
10*15604	G	9-11-13	HAYHURST COMPANY A FLORIDA PARTNERSHIP	724	8

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Office of Oil and Gas
DEC 27 2016
W&E Department of
Environmental Protection

02/17/2017

WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

DIANNA STAMPER
DESIGNATED AGENT CT CORPORATION SYSTEM
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313