

**FITZGERALD S LEASE
UTICA UNIT - 412.02 AC±
WELL 17HU
TUG HILL OPERATING**

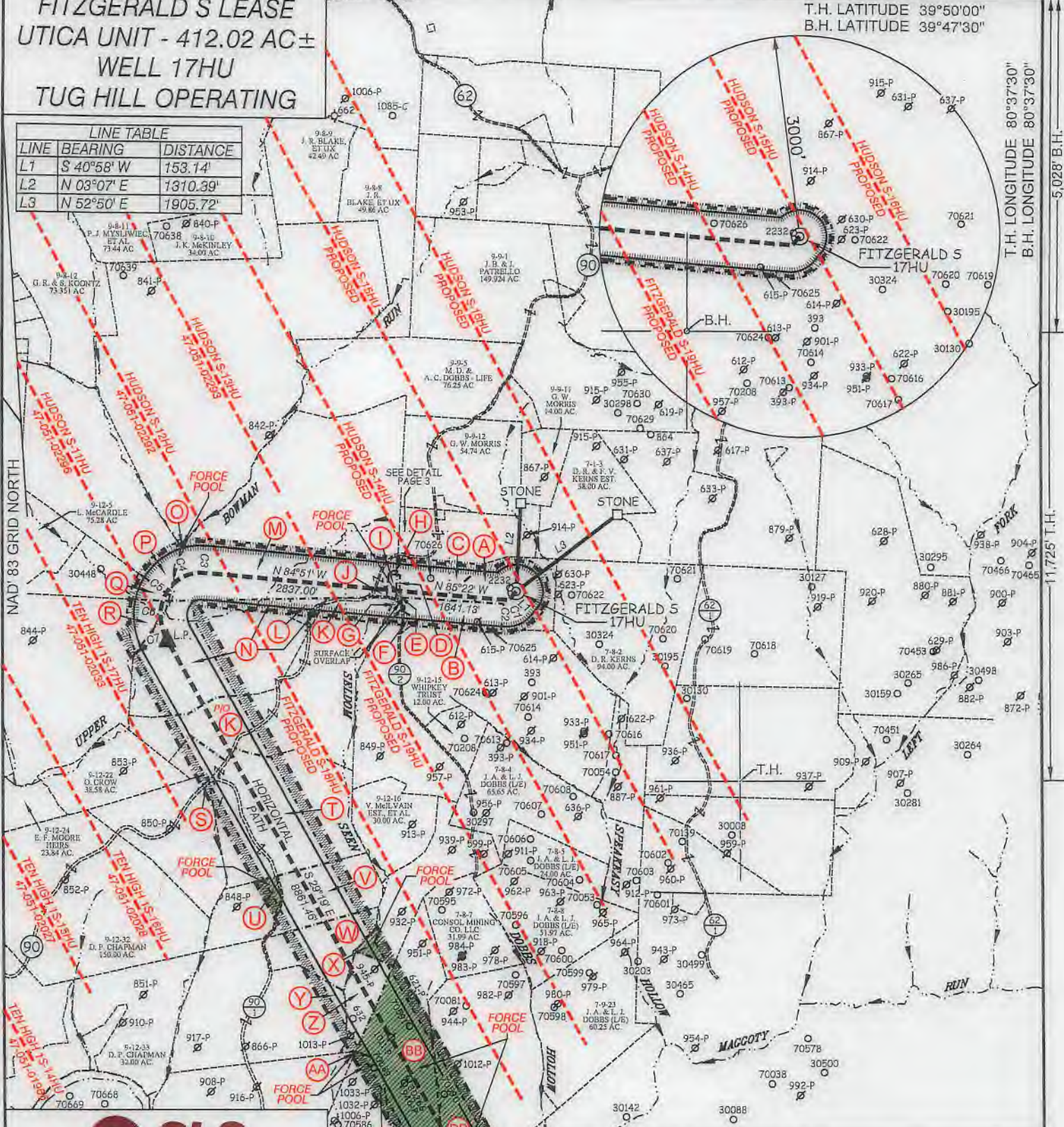
LINE TABLE

LINE	BEARING	DISTANCE
L1	S 40°58' W	153.14'
L2	N 03°07' E	1310.39'
L3	N 52°50' E	1905.72'

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

T.H. LONGITUDE 80°37'30"
B.H. LONGITUDE 80°37'30"

NAD '83 GRID NORTH



12 Vanhorn Drive | P.O. Box 150 | Glenview, 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
slsvw.com

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	19.05'	33.83'	S 61°10' W	18.80'
C2	28.43'	102.99'	S 86°47' W	28.34'
C3	139.64'	989.05'	N 87°22' W	139.53'
C4	408.91'	599.07'	S 67°38' W	401.02'
C5	322.40'	631.18'	S 32°33' W	318.91'
C6	337.71'	681.85'	S 03°59' W	334.27'
C7	271.73'	801.26'	S 19°24' E	270.43'

P.S. 849 *C. Victor Moyers*

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

NAD'83 S.P.C.(FT)	N. 475,953.93	E. 1,647,905.85
NAD'83 GEO.	LAT-(N) 39.801145	LONG-(W) 80.641103
NAD'83 UTM (M)	N. 4,405,748.24	E. 530,724.06

LANDING POINT

NAD'83 S.P.C.(FT)	N. 475,210.8	E. 1,642,684.1
NAD'83 GEO.	LAT-(N) 39.798921	LONG-(W) 80.659653
NAD'83 UTM (M)	N. 4,405,495.2	E. 529,137.0

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 467,484.4	E. 1,647,023.4
NAD'83 GEO.	LAT-(N) 39.777864	LONG-(W) 80.643860
NAD'83 UTM (M)	N. 4,403,163.5	E. 530,498.3



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

LEGEND

- UNIT BOUNDARY
- LEASED TRACTS INSIDE
- UNIT BOUNDARY
- SURFACE LINE
- PROPOSED UTICA
- WELL LATERAL
- 400' OFFSET LINE
- 500' OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- FORCE POOL TRACT
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- SURFACE OWNER (SEE TABLE)
- LEASE # (SEE ADDITIONAL SHEETS)

SCALE 1" = 2000' FILE NO. 8910P17HUR2.dwg
FITZGERALD S-17HU REV6
DATE MARCH 11, 20 20
REVISED APRIL 13, MAY 6, 20 20
OPERATORS WELL NO. FITZGERALD S-17HU
API WELL NO. 47 - 051 - 02324 H6A
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 FORT WORTH, TX 76107	ADDRESS	CT CORPORATION SYSTEM 5400 D BIG TYLER ROAD CHARLESTON, WV 25313

**FITZGERALD S LEASE
UTICA UNIT - 412.02 AC±
WELL 17HU
TUG HILL OPERATING**

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T.H. LONGITUDE 80°37'30"
B.H. LONGITUDE 80°37'30"
5,028' B.H.
11,725' T.H.

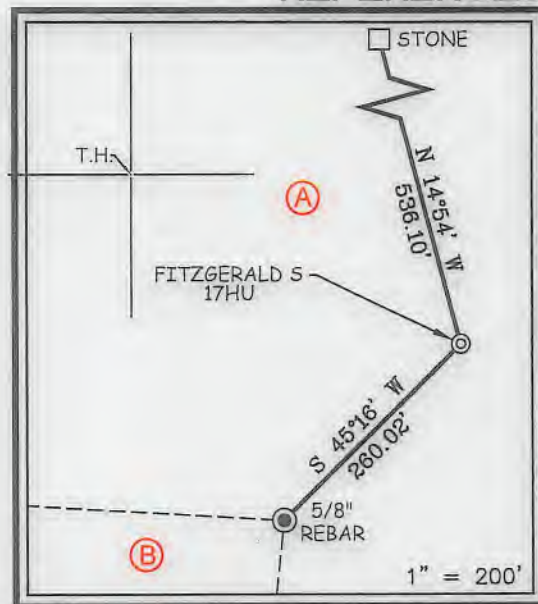
TAG	SURFACE OWNER	PARCEL	ACRES
A	DANNY R. & FRANCES V. KERNS ESTATE	7-8-1	27.00
B	CONSOL MINING CO., LLC	9-12-14	127.61
C	DANNY R. & FRANCES V. KERNS ESTATE	9-9-14	48.308
D	NAUVOO CEMETERY ASSOC. INC.	9-9-14.2	0.292
E	TRUSTEES OF THE REORGANIZED CHURCH OF LATTER DAY SAINTS	9-9-15	LOT
F	VIRGINIA MCILVAIN ESTATE & THE WHIPKEY TRUST	9-9-18	LOT
G	WHIPKEY TRUST	9-12-12	61.00
H	NAUVOO CEMETERY ASSOC. INC.	9-9-16.1	0.126
I	NAUVOO CEMETERY ASSOC. INC.	9-9-17	1.00
J	GARY W. MORRIS	9-9-22	0.15
K	WARREN BERYLE & ELEANOR LOU CHAMBERS - LIFE	9-12-11	91.00
L	ROBERT W. KNIGHT	9-12-10	3.00
M	TODD L. SCHERICH, ET AL	9-9-16	168.204
N	CHARLES WILLIAM DOBBS, ET AL	9-12-9	82.26
O	MARY LOU RUBINI, DAVID & ERIC KATZMEYER	9-9-4	268.39
P	CONSOL MINING CO., LLC	9-9-3	84.50
Q	LUCY MCCARDLE	9-9-1	20.89
R	LUCY MCCARDLE	9-12-8	117.85
S	DAVID PAUL CHAPMAN	9-12-21	50.00
T	RONALD EUGENE & MARY LEE DOBBS	9-12-20	91.00
U	RAYMOND D. DOBBS, ET UX	9-12-34	17.5
V	RAYMOND D. DOBBS, ET UX	9-12-19	30.00
W	ROY ROGERS WOODS, SR.	9-12-18	30.00
X	VIRGINIA MCILVAIN ESTATE & THE WHIPKEY TRUST	9-12-17	37.27
Y	ANNA E. MEYER ESTATE	9-12-35	93.64
Z	CONSOL MINING CO., LLC	9-12-36	15.30
AA	CONSOL MINING CO., LLC	9-15-6	59.00
BB	CONSOL MINING CO., LLC	7-9-1	59.00
CC	PAUL & SUSAN ASTON	7-9-2	98.95
DD	CONSOL MINING CO., LLC	7-9-22	101.36

B.H.

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 ARE 1"=2000'
- PROPOSED LATERAL OR TOP HOLE OF FITZGERALD S-17HU IS WITHIN 3000' OF THE TOP HOLES OR LATERALS OF PROPOSED FITZGERALD S-18HU, PROPOSED FITZGERALD S-19HU, HUDSON S-11HU (47-051-02296), HUDSON S-12HU (47-051-02292), HUDSON S-13HU (47-051-02293), PROPOSED HUDSON S-14HU, PROPOSED HUDSON S-15HU, PROPOSED HUDSON S-16HU, TEN HIGH 1S-16HU (47-051-02028) & TEN HIGH 1S-17HU (47-051-02033).

REFERENCES

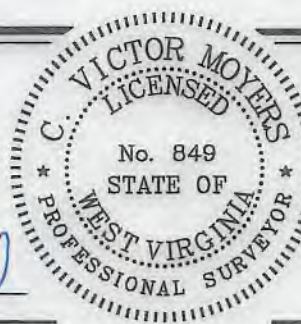


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slswv.com

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. 849

C. Victor Moyers



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

DATE MARCH 11, 20 20
REVISED _____, 20 _____
OPERATORS WELL NO. FITZGERALD S-17HU
API WELL NO. 47 - 051 - 02324 ^{H&A} _{PC&P}
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8910P17HU.dwg
FITZGERALD S-17HU REV6

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 X INJECTION _____ WASTE DISPOSAL _____ IF "GAS" PRODUCTION X STORAGE _____ DEEP X SHALLOW _____

LOCATION: GROUND = 1,318.40' ELEVATION PROPOSED = 1,344.81' WATERSHED SPEAKEASY HOLLOW OF MAGGOTY RUN

DISTRICT LIBERTY COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER DANNY AND FRANCES KERNS ESTATE ACREAGE 27.00±

ROYALTY OWNER DANNY S. KERNS, ET AL ACREAGE 27.00±

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 POINT PLEASANT ESTIMATED DEPTH TVD: 12,064' / TMD: 23,833'

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

COUNTY NAME
PERMIT

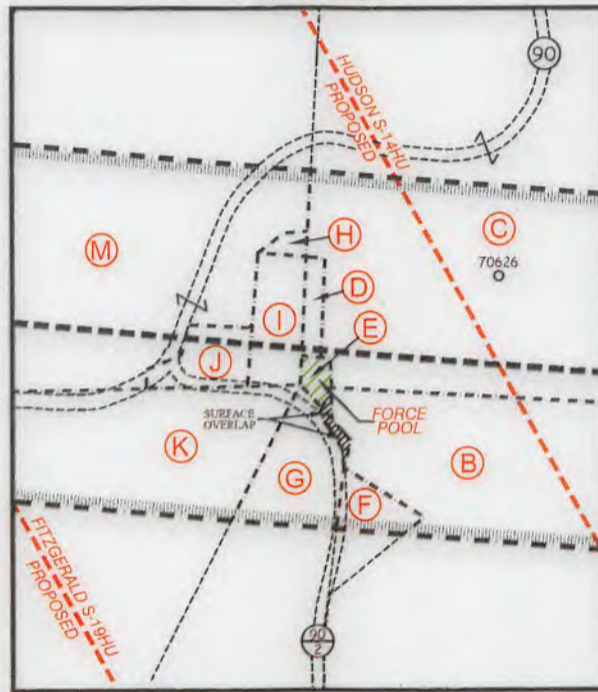
**FITZGERALD S LEASE
UTICA UNIT - 412.02 AC±
WELL 17HU
TUG HILL OPERATING**



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1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.1052
254 East Beckley Bypass | Beckley, WV 26001 | 304.255.5296
slswv.com

NO.	Lease ID	Tags	Parcel	Grantor, Lessor, Etc.	Deed Book/Page
1	10*25518	A	7-8-1	DANNY S KERNS, MARRIED MAN DFALING WITH HIS SOLE AND SEPARATE PROPERTY et al	1010 532
2	10*18339	B	9-12-14	RESOURCE MINERALS HEADWATER I LP et al	940 448
3	PENDING	C	9-9-14	REGINA DANETTE FIGUEROA et al	1075 137
4	10*27299	D	9-9-14.2	NAUVOO CEMETERY ASSOCIATION	1057 357
5	**	E	9-9-15	REORGANIZED CHURCH OF LATER DAY SAINTS	UNRELEASED
6	10*22524	F	9-9-18	ALYCE LYNN MCGUFFIE et al	1027 233
7	10*19557	G	9-12-12	TERRY L BLAKE et al	944 649
8	10*19987	H	9-9-16.1	LESLEY D BALLA et al	955 103
9	10*27299	I	9-9-17	NAUVOO CEMETERY ASSOCIATION	1057 357
10	10*24535	J	9-9-22	BOARD OF EDUCATION OF MARSHALL COUNTY	1026 64
11	10*15494	K	9-12-11	CHRISTOPHER SINGER AND SHEREA SINGER et al	898 433
12	10*23656	L	9-12-10	ROBERT W KNIGHT AND BARBARA J KNIGHT	1011 504
13	10*19987	M	9-9-16	LESLEY D BALLA et al	955 103
14	10*15999	N	9-12-9	CHARLES W DOBBS AND JUDITH M DOBBS et al	702 171
15	**	O	9-9-4	MARY LOU RUBINI AKA MARY LOU MILLER et al	793 287
16	10*47051.304.0	P	9-9-3	UNITED BANK INC	905 5
17	10*23386	Q	9-9-1	EDITH CARMICHAEL HEIRS BY HERMAN IANTZ, ESQ AS SPEC COMMISSIONER et al	1008 68
18	10*47051.289.1	R	9-12-8	JANICE M HIXSON AND HARRY C HIXSON et al	898 461
19	10*47051.140.1	S	9-12-21	DAVID P CHAPMAN & DEBORAH BORCK CHAPMAN et al	806 318
20	10*24579	T	9-12-20	PIKEWOOD ENERGY CORPORATION AN OHIO CORPORATION et al	1026 149
21	10*21449	U	9-12-34	GARY WAYNE MORRIS et al	957 262
22	10*19748	V	9-12-19	ELIZABETH JANE KELLEY et al	957 335
23	10*18073	W	9-12-18	ROY R WOODS	927 22
24	10*21532	X	9-12-17	CHARLES F RICHARDSON AND SHIRLEY S RICHARDSON et al	957 327
25	10*19706	Y	9-12-35	BARBARA JO BEVERIDGE et al	944 627
26	PENDING	Z	9-12-36	OCTO OIL COMPANY LLC	1076 17
27	PENDING	AA	9-15-6	OCTO OIL COMPANY LLC et al	1076 17
28	10*22631	BB	7-9-1	FREDA ELIZABETH BLAKE et al	966 632
29	**	CC	7-9-2	AUSTIE CARNEY ET AL	363 15
30	10*17930	DD	7-9-22	BOUNTY MINERALS LLC et al	928 396

DETAIL
SCALE: 1" = 500'



FILE NO. 8910P17HUR.dwg
FITZGERALD S-17HU REV6

DATE MARCH 11, 2020

REVISED MARCH 25, 2020

OPERATORS WELL NO. FITZGERALD S-17HU

API NO. 47 — 051 — 02324
STATE COUNTY PERMIT



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

P.S. 849 *C. Victor Moyers*

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FORT WORTH, TX 76107

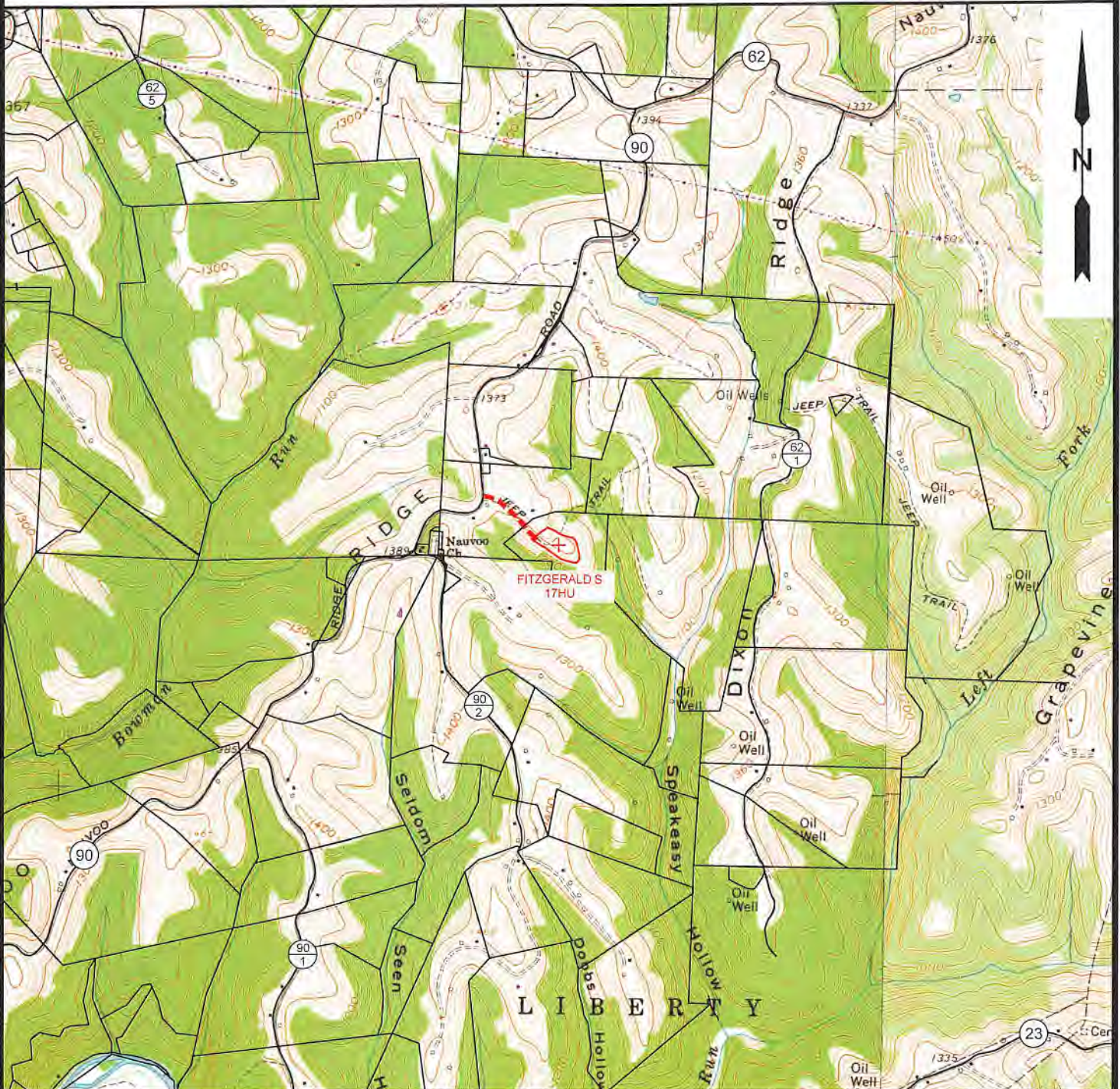
DESIGNATED AGENT DIANNA STAMPER
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME
PERMIT

WW-9

PROPOSED FITZGERALD S - 17HU

SUPPLEMENT PG. 2



NOTE: CLOSEST WATER PURVEYOR
CITY OF CAMERON - FRANK WALKER RESERVOIR
CAMDEN, WV

LAT: 39.829865
LON: -80.573724
LOCATED: N 62°00'46" E AT 21,684.26' FROM THE CENTER OF FITZGERALD S WELL PAD LOCATION.

RECEIVED
Office of Oil and Gas

MAR 17 2020



12 Vanhorn Drive | P.O. Box 150 | Glenville, WV 26351 | 304.462.5534
1412 Kanawha Boulevard, East | Charleston, WV 25301 | 304.346.3952
254 East Beckley Bypass | Beckley, WV 25801 | 304.255.5295
slswv.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5' & CAMERON 7.5'		PREPARED FOR: TUG HILL OPERATING, LLC 380 SOUTHPOINTE BLVD SUITE 200 CANONSBURG, PA 15317	
COUNTY	DISTRICT		
MARSHALL	LIBERTY & MEADE		
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8910	03/03/2020	1" = 2000'



WV Department of Environmental Protection
TUG HILL OPERATING