

**FITZGERALD S LEASE
WELL 8HM
TUG HILL OPERATING**

LEGEND

- LEASE LINE
- SURFACE LINE
- WELL LATERAL
- OFFSET LINE
- TIE LINE
- CREEK
- ROAD
- COUNTY ROUTE
- PROPOSED WELL
- EXISTING WELL
- PERMITTED WELL
- TAX MAP-PARCEL SURFACE OWNER (SEE TABLE)
- LEASE # (SEE WW-6A1)

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

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

NAD'83 S.P.C.(FT)	N. 476,008.22	E. 1,647,812.58
NAD'83 GEO.	LAT-(N) 39.801291	LONG-(W) 80.641437
NAD'83 UTM (M)	N. 4,405,764.30	E. 530,695.37

LANDING POINT

NAD'83 S.P.C.(FT)	N. 475,748.9	E. 1,647,794.4
NAD'83 GEO.	LAT-(N) 39.800578	LONG-(W) 80.641490
NAD'83 UTM (M)	N. 4,405,685.2	E. 530,691.2

BOTTOM HOLE

NAD'83 S.P.C.(FT)	N. 472,612.7	E. 1,649,544.7
NAD'83 GEO.	LAT-(N) 39.792030	LONG-(W) 80.635120
NAD'83 UTM (M)	N. 4,404,736.7	E. 531,240.4

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

DETAIL SCALE: 1"=500'



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. KERNS	9-9-13	25 AC. 47 POLES

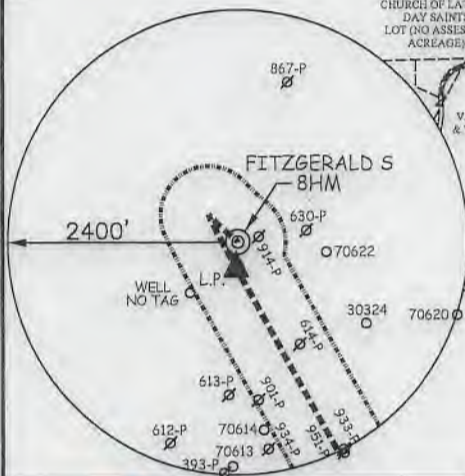
CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	12.72'	25.51'	N 31°33' W	12.59'
C2	3.72'	1.55'	S 57°16' W	2.89'
C3	64.47'	585.71'	S 24°13' E	64.43'
C4	189.03'	7039.26'	S 27°31' E	189.03'
C5	358.56'	32666.95'	S 28°44' E	358.55'

LINE	BEARING	DISTANCE
L1	N 49°03' W	226.89'
L2	N 45°06' W	175.06'
L3	N 07°28' E	1264.89'
L4	N 55°45' E	1949.79'

NAD'83 GRID NORTH

11,672' T.H.

15,045' B.H.

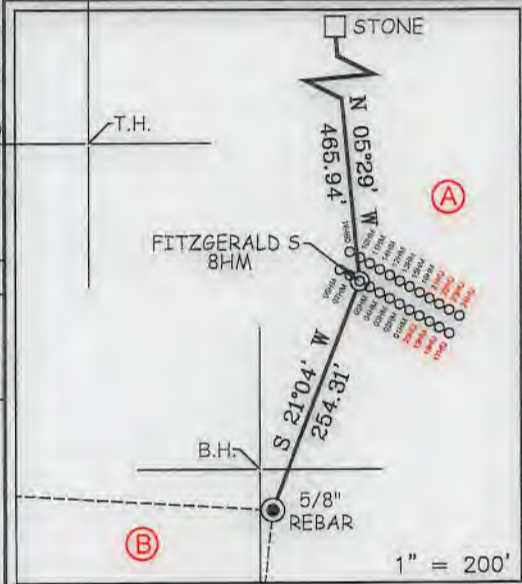


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Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26031 • (304) 462-5634
www.slsrv.com

NOTES ON SURVEY

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

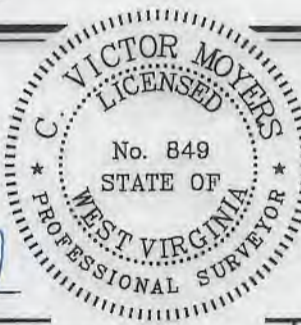
REFERENCES



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P.S. 849

C. Victor Moyers



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE APRIL 30, 20 19
REVISED MAY 13, 20 19
OPERATORS WELL NO. FITZGERALD S-8HM
API WELL NO. 47 - D51 - D2232
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8910P8HMREV3.dwg
FITZGERALD S-8HM REV3
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: GROUND = 1,316.70' ELEVATION PROPOSED = 1,293.30' WATERSHED SPEAKEASY HOLLOW, A TRIBUTARY OF MAGGOTY RUN
DISTRICT LIBERTY COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'

SURFACE OWNER DANNY R. KERNS ACREAGE 27.00±
ROYALTY OWNER DANNY S. KERNS, ET AL ACREAGE 27.00±
LEASE NO. SEE WW-6A1

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: 7,070' / TMD: 10,894'

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

4,618' T.H. 2,844' B.H.

**FITZGERALD S LEASE
WELL 8HM
TUG HILL OPERATING**

LEGEND

- LEASE LINE
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- OFFSET LINE
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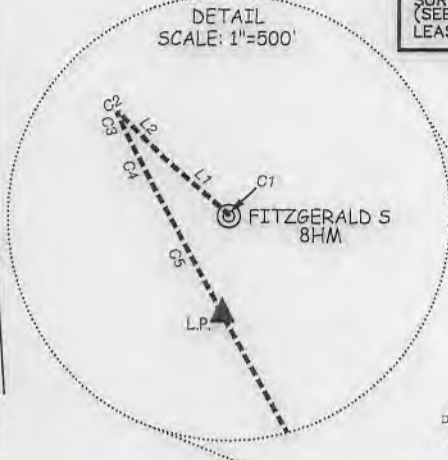
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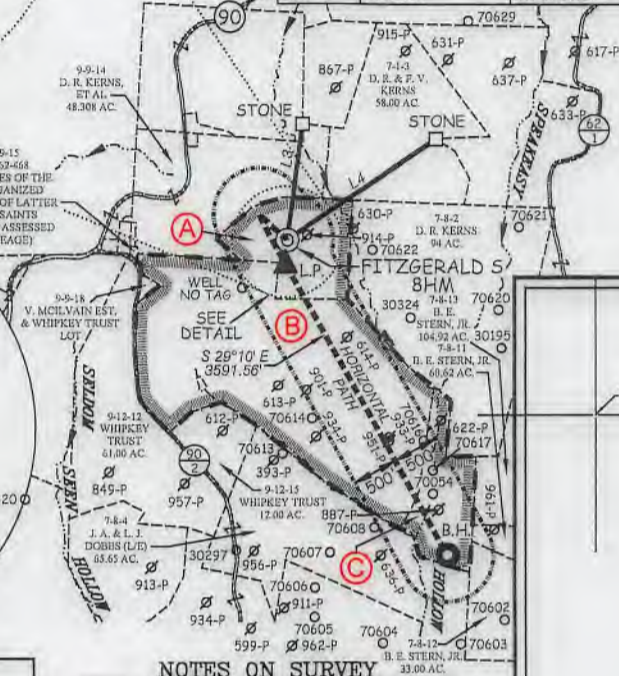
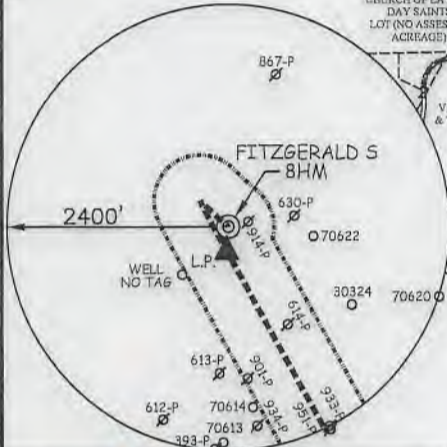


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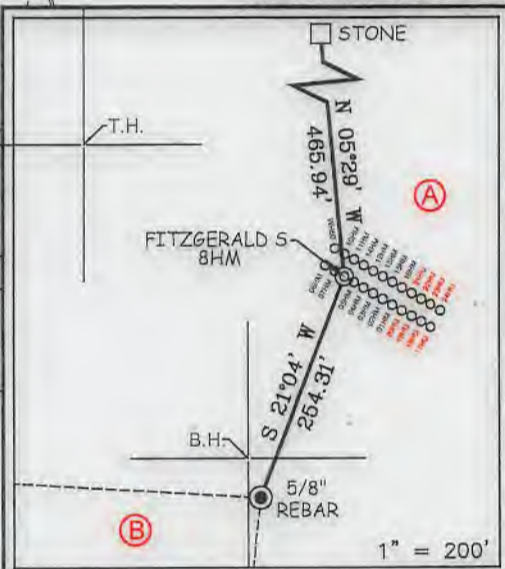
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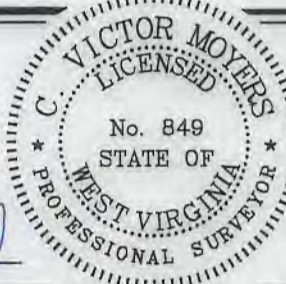
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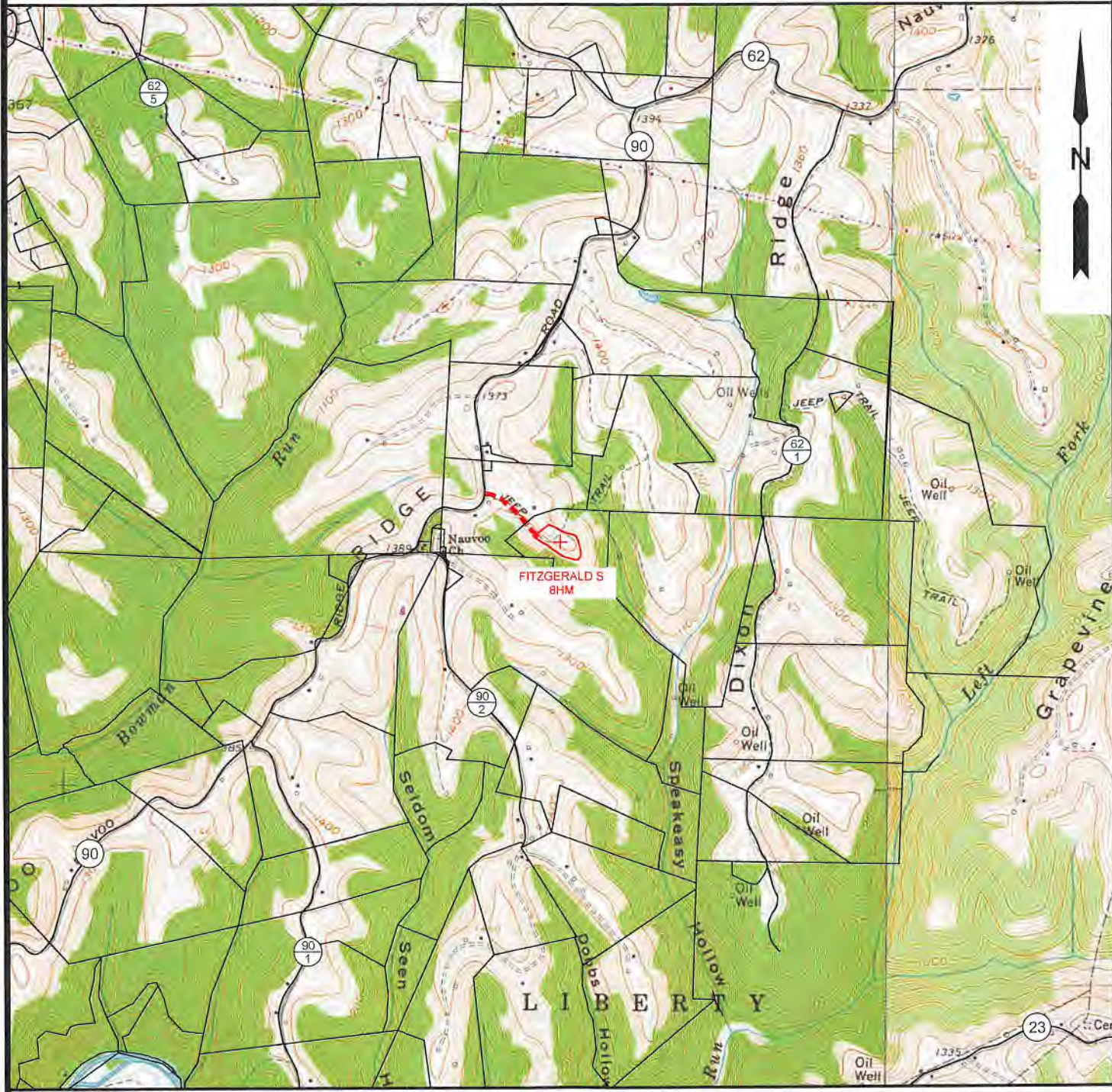
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FORT WORTH, TX 76107 ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME

PERMIT

PROPOSED FITZGERALD S - 8HM



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.

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TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5' & CAMERON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	LIBERTY & MEADE	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8910	05/03/2019	1" = 2000'

TUG HILL
OPERATING