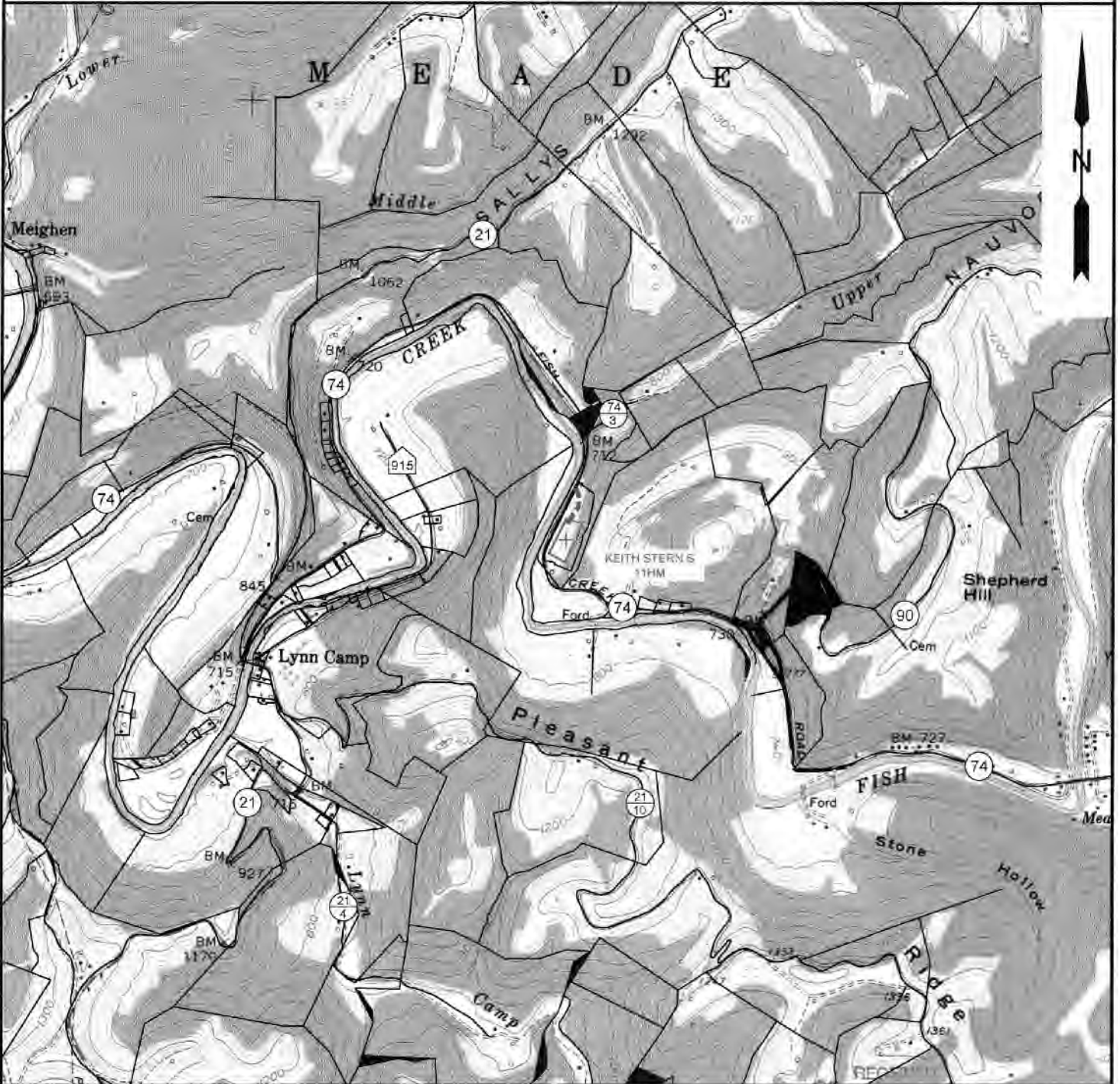


PROPOSED KEITH STERN S - 11HM



NOTE: CLOSEST WATER PURVEYOR
GRANDVIEW - DOOLIN PUBLIC SERVICE DISTRICT
PROCTOR, WV

LAT: 39.7137712
LON: -80.8258327
LOCATED: S 60°11'49" W AT 43,719.31' FROM THE CENTER OF KEITH STERN S WELL PAD LOCATION.

SLS
Land & Energy Development
Solutions from the ground up.
P.O. Box 150 • 12 Vanhorn Drive • Glenville, WV 26031 • (304) 482-5834
www.slssurveys.com

TOPO SECTION:		OPERATOR:	
GLEN EASTON 7.5'		PREPARED FOR:	
COUNTY	DISTRICT	TUG HILL OPERATING, LLC	
MARSHALL	MEADE	380 SOUTHPOINTE BLVD	
		SUITE 200	
		CANONSBURG, PA 15317	
DRAWN BY	JOB NO.	DATE	SCALE
K.G.M.	8811	04/17/2018	1" = 2000'

WV Department of
Environmental Protection
**TUG HILL
OPERATING**

7,164' T.H.

2,355' B.H.

**KEITH STERN S LEASE
WELL 11HM
TUG HILL OPERATING**

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

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

NAD'83 S.P.C.(FT) N. 466,512.72 E. 1,633,435.45
NAD'83 GEO. LAT-(N) 39.774712 LONG-(W) 80.692156
NAD'83 UTM (M) N. 4,402,798.24 E. 526,363.63

LANDING POINT

NAD'83 S.P.C.(FT) N. 465,574.9 E. 1,634,682.6
NAD'83 GEO. LAT-(N) 39.772183 LONG-(W) 80.687675
NAD'83 UTM (M) N. 4,402,518.9 E. 526,748.3

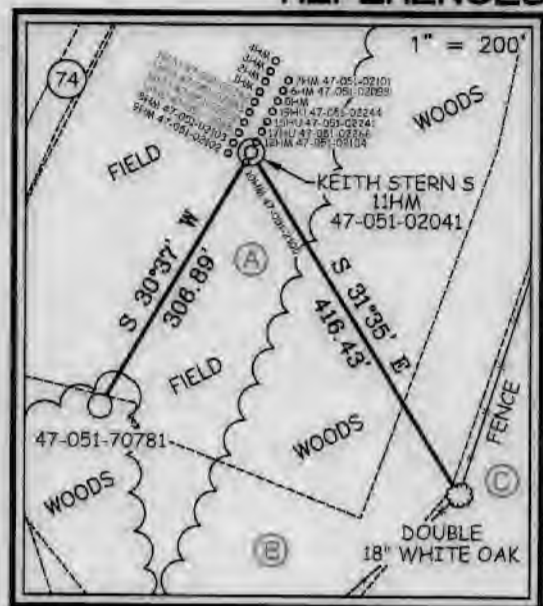
BOTTOM HOLE

NAD'83 S.P.C.(FT) N. 459,208.3 E. 1,638,160.0
NAD'83 GEO. LAT-(N) 39.754831 LONG-(W) 80.675044
NAD'83 UTM (M) N. 4,400,596.9 E. 527,837.1

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

TAX MAP/PCL	ADJOINING SURFACE OWNER	ACRES
17-4	PHILIP L. MCCABE	7.097
17-4.1	DAVID M. FRABRIZIO	5.780
17-4.2	RICKY E DAVIS	1.301
17-4.3	SYLVIA JEAN NECHOUSE	1.329
17-5	KENNETH E. JANISZEWSKI, ET UX	5.00
17-38.1	RYAN J. & MICHELLE L. RIDDLE	3.00
19-4.1	SAMUEL YOHO	3.97

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'



© Raymond Stone & Associates, Inc. 2011
1320 South University Drive, Suite 500
Fort Worth, Texas 76107
www.sls.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 APRIL 17, 20 18
REVISED APRIL 9, MAY 18, 20 20
OPERATORS WELL NO. KEITH STERN N-11HM
API WELL NO. 47 - 051 - 02331
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 8811P11HMR2.dwg
KEITH STERN S-11HM-REV2
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 = 741.50' ELEVATION PROPOSED = 744.65' WATERSHED FISH CREEK (HUC 10)
DISTRICT MEADE COUNTY MARSHALL QUADRANGLE GLEN EASTON 7.5'
SURFACE OWNER TH EXPLORATION, LLC ACREAGE 10.05±
ROYALTY OWNER TH EXPLORATION, LLC, ET AL - SEE WV-6A1 ACREAGE 10.05±
PROPOSED WORK: LEASE NO. SEE WV-6A1
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: 6,412' / TMD: 14,044'

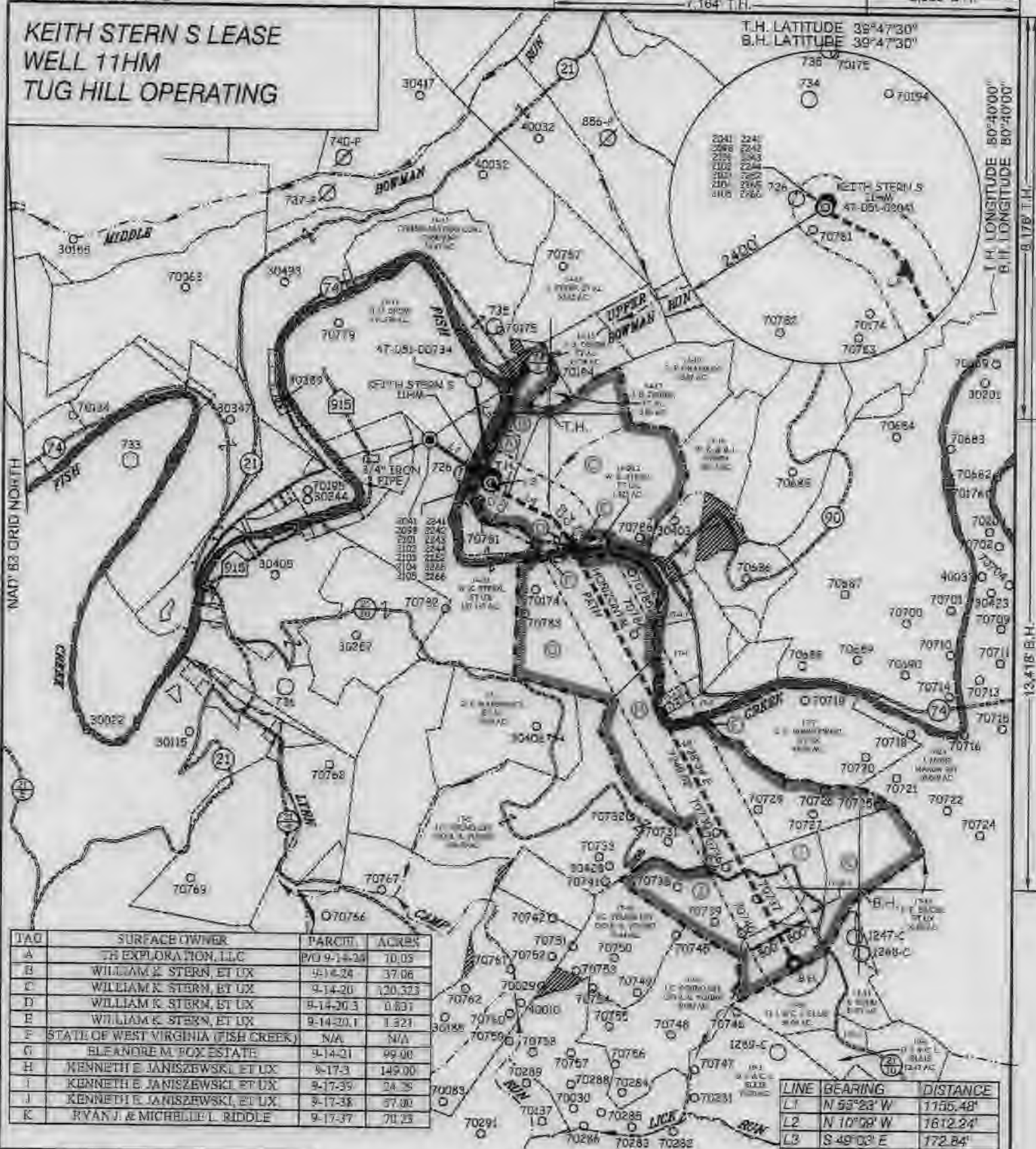
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 ADDRESS GT CORPORATION SYSTEM
FORT WORTH, TX 76107 ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313

COUNTY NAME
PERMIT

**KEITH STERN S LEASE
WELL 11HM
TUG HILL OPERATING**

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

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



TAG	SURFACE OWNER	PARCEL	ACRES
A	TH EXPLORATION, LLC	P/O 9-14-24	10.05
B	WILLIAM K. STERN, ET UX	9-14-24	37.06
C	WILLIAM K. STERN, ET UX	9-14-20	120.323
D	WILLIAM K. STERN, ET UX	9-14-20.3	0.831
E	WILLIAM K. STERN, ET UX	9-14-20.1	1.321
F	STATE OF WEST VIRGINIA (FISH CREEK)	N/A	N/A
G	BLEANDRE M. FOX ESTATE	9-14-21	99.00
H	KENNETH E. JANISZEWSKI, ET UX	9-17-3	149.00
I	KENNETH E. JANISZEWSKI, ET UX	9-17-35	24.35
J	KENNETH E. JANISZEWSKI, ET UX	9-17-38	37.80
K	RYAN J. & MICHELLE L. RIDDLE	9-17-37	70.25

LINE	BEARING	DISTANCE
L1	N 53°23' W	1155.48'
L2	N 10°58' W	1612.24'
L3	S 49°03' E	172.84'
L4	S 68°32' E	706.28'

CURVE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	39.91'	298.07'	S 55°48' E	39.88'
C2	136.01'	2182.98'	S 61°38' E	184.99
C3	106.44'	382.12'	S 51°25' E	106.99
C4	198.77'	7264.23'	S 39°00' E	198.56
C5	238.16'	2285.77'	S 31°35' E	288.05



© 2008 SLS, Inc. P.O. Box 150 | Charleston, WV 25301 | 304.462.5834
1472 Kaysville Boulevard, Inc. | Charleston, WV 25301 | 304.462.5834
266 8th Street, Dunbar, WV 26031 | 304.335.5290
www.sls.com



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

P.S. 849 *C. Victor Moyers*

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. 8811P11HMR2.dwg
KEITH STERN S-11HM-REV2
DATE APRIL 17, 2018
REVISED APRIL 9, MAY 18, 2020
OPERATORS WELL NO. KEITH STERN N-11HM
API WELL NO. 47-51-02331
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