

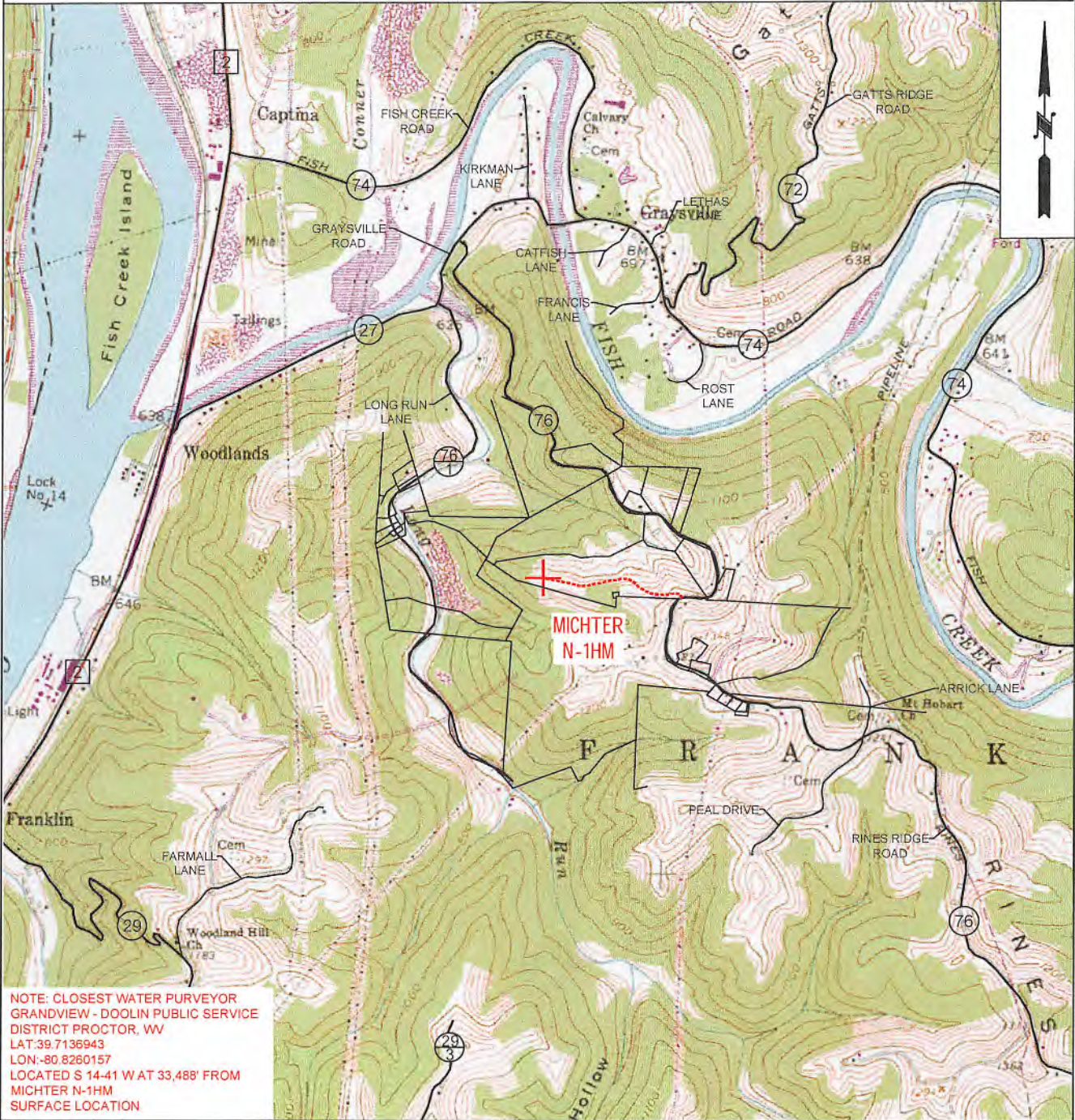
OCT 02 2019

WV Department of
Environmental Protection

WW-9

**PROPOSED
MICHTER N-1HM**

SUPPLEMENT PG 2



**TUG HILL
OPERATING**

OPERATOR 494510851
TUG HILL OPERATING, LLC
380 SOUTHPOINTE BLVD
SUITE 200
CANONSBURG, PA 15317

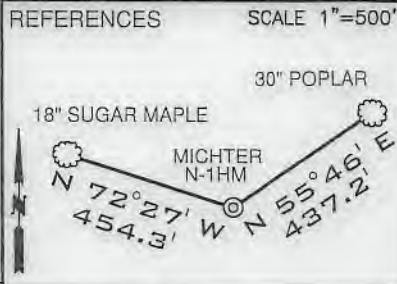
TOPO SECTION
POWATAN POINT 7.5'
SCALE:
1" = 2000'

LEASE NAME
MICHTER
DATE:
DATE: 08-23-2019

(BH) 6,482'
(TH) 1,687'

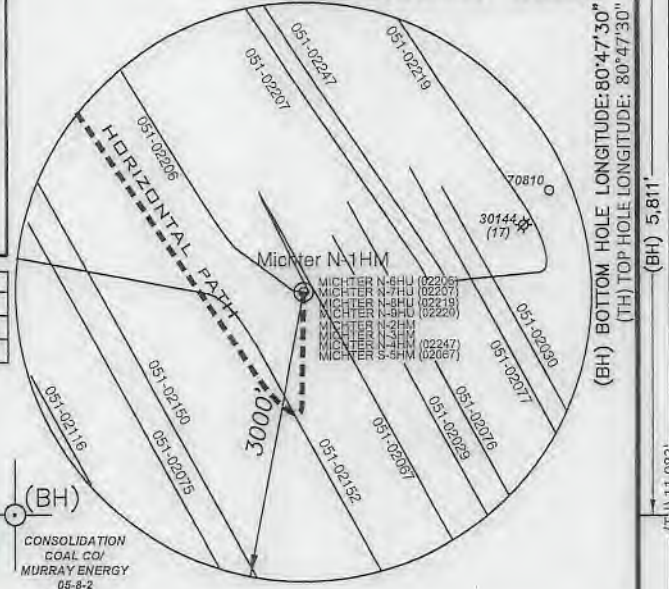
MICHTER LEASE WELL N-1HM

579.6358± ACRES



LINE	BEARING	DISTANCE
L1	N 72° 22' W	841.43'
L2	N 78° 36' E	1880.23'
L3	S 00° 58' W	1184.83'

TOP HOLE LATITUDE: 39° 50' 00"
BOTTOM HOLE LATITUDE: 39° 50' 00"



(BH) BOTTOM HOLE LONGITUDE: 80° 47' 30"
(TH) TOP HOLE LONGITUDE: 80° 47' 30"

GRID NORTH

- (+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS NOTES
- BORE PATH BASED ON GRID NORTH.
 - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
 - BOUNDARIES ALONG ROADWAYS ARE BASED UPON MEMORANDUM BY DICKIE, MCCAMEY & CHILGOTE, P.C. FILE 0058304.0401147

CONSOLIDATION COAL COMPANY 05-6-3-1 476.56 Ac.

CONSOLIDATION COAL COMPANY/MURRAY ENERGY 05-7-4 65.322 Ac.

CONSOLIDATION COAL CO/MURRAY ENERGY 05-8-2 136.567 Ac.

LEGEND

- LEASE TRACTS
- SURFACE TRACTS
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

- DETAIL SKETCH "A" SCALE 1"=100'**
- MICHTER N-8HU (02206)
 - MICHTER N-7HU (02207)
 - MICHTER N-8HU (02219)
 - MICHTER N-9HU (02220)
 - MICHTER N-1HM
 - MICHTER N-2HM
 - MICHTER N-4HM (02247)
 - MICHTER S-5HM (02067)

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
(TH) ○

N) 4,405,907.40
E) 517,335.72

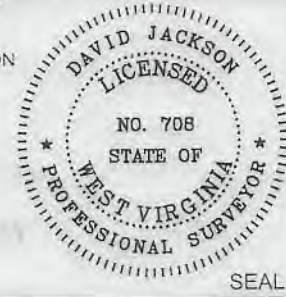
LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,405,645.42
E) 517,187.51

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,407,511.14
E) 515,871.38

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	S 76° 03' W	55.13'	88.19'	56.37'
C2	S 67° 27' W	40.89'	47.19'	42.26'
C3	N 69° 48' W	66.35'	172.75'	87.28'
C4	N 60° 24' W	176.75'	790.87'	177.12'
C5	N 39° 05' W	334.03'	1878.24'	334.47'

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

David L Jackson



FILE NUMBER _____

DRAWING NUMBER MICHTER_N-1HM_REV1

SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING GRADE GPS



JACKSON SURVEYING INC.
P.O. Box 1460
Clarksburg, WV 26302
304-623-5851

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

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION ELEVATION 1127.11' WATERSHED (HUC 10) FISH CREEK

DISTRICT FRANKLIN COUNTY MARSHALL

QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER LARRY W. DUNLAP, ET AL ACREAGE 34.405

OIL & GAS ROYALTY OWNER LARRY W. DUNLAP, ET AL LEASE ACREAGE 34.405

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___
PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE (SPECIFY) _____

TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD: 6,409' TMD: 14,395'

WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER CT CORPORATION SYSTEM

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

COUNTY NAME PERMIT