

TOP HOLE LATITUDE: 39°47'30"
 BOTTOM HOLE LATITUDE: 39°50'00"

S-11HM(02022) O
 S-8HM(01979) O
 S-9HM(01980) O
 S-10HM(02006) O
 N-4HM(02076) O
 1H (01340) O
 N-2HM(01999) O
 N-3HM(02000) O

N-7HM(01978) O
 N-6HM(01977) O
 N-5HM(02077) O
 N-14HU(02031) O
 N-13HU(02030) O
 N-12HU(02029) O

DETAIL SKETCH "A"
 SCALE 1"=800'

REFERENCES
 SCALE 1"=200'

NUMBER	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH
C1	N 81°08' E	124.73	76.46	75.27
C2	N 39°37' E	129.02	92.56	90.59

NUMBER	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH
C3	N 05°49' E	372.46	161.62	160.35
C4	N 14°14' W	934.86	265.38	264.49
C5	N 25°23' W	1317.22	171.60	171.48

- NOTES
1. BORE PATH BASED ON GRID NORTH.
 2. NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 3. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 4. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
 5. TRACTS "M" AND "EE" ARE FORCED POOLED.
 6. ALL DEEP WELLS WITHIN 3,000' OF LATERAL ARE SHOWN ON THIS PLAT.

LINE	BEARING	DISTANCE
L1	N 42°04' E	2932.82'
L2	N 81°43' E	1975.85'
L3	S 49°02' E	104.65'
L4	S 82°42' E	1603.50'

LEGEND

- LEASED TRACTS
- SURFACE TRACTS
- WELL LATERAL
- POINT PLEASANT LEGS
- 400' BORE PATH OFFSET
- 500' WELL BORE OFFSET
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)
- (+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS
- FORCED POOL TRACT

SURFACE HOLE
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,402,887.17
 E) 519,138.53

LANDING POINT 1
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,403,001.40
 E) 519,648.22

BOTTOM HOLE
 UTM. NAD83, ZONE 17
 IN METERS
 N) 4,405,985.62
 E) 517,921.82

FILE NUMBER _____

DRAWING NUMBER BRYAN_N-13HU_REV 3

SCALE 1" = 2000'

MINIMUM DEGREE OF ACCURACY 1/200

PROVEN SOURCE OF ELEVATION SUBMETER MAPPING
GRADE GPS

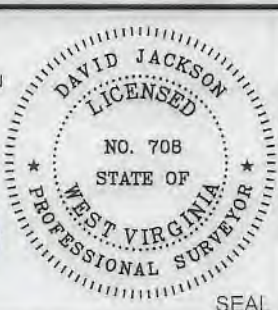
I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION

P.S. 708

David L Jackson

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

9/12/18



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 X SHALLOW ___

LOCATION ELEVATION 1191.0' WATERSHED (HUC 10) Fish Creek

DISTRICT Franklin COUNTY Marshall

QUADRANGLE Powhatan Point 7.5' LEASE NUMBER SEE WW-6A1 ROYALTY OWNERS

STATE 47 COUNTY 051 PERMIT 02030 mad

SURFACE OWNER CNX LAND RESOURCES, INC. ACREAGE 81.98

OIL & GAS ROYALTY OWNER MICHAEL R. BRYAN - SEE WW-6A1 ROYALTY OWNERS LEASE ACREAGE 81.98

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 Point Pleasant ESTIMATED DEPTH TVD: 11,419' TMD: 23,341'

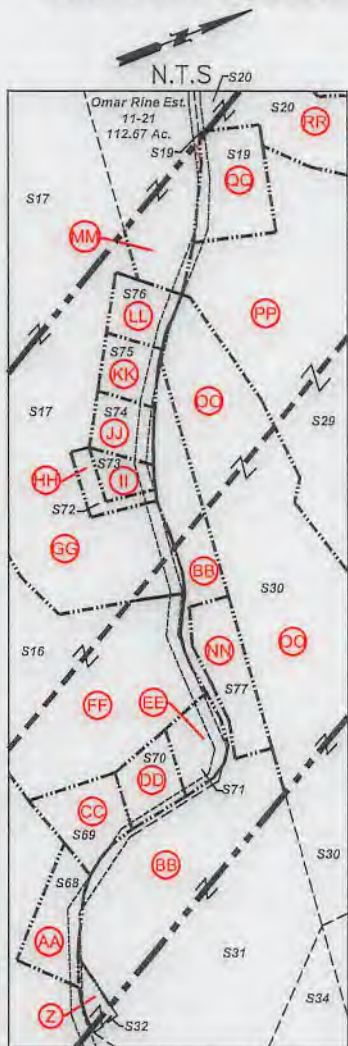
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER
CT CORPORATION SYSTEM

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

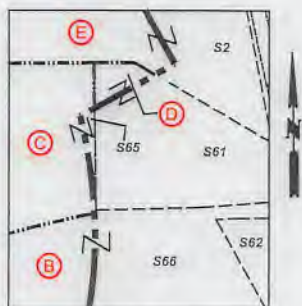
COUNTY NAME
 PERMIT

47-051-02030 Mod

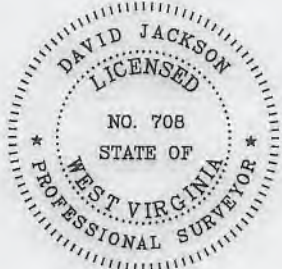
**BRYAN LEASE
UTICA UNIT - 397.0538 AC±
WELL N-13HU
TUG HILL OPERATING**



Detail "A"



Detail "B"



P.S. 708 *David L Jackson*

Number	TAX MAP -PARCEL	SURFACE OWNER	ACRES
S1	05-15-9	CNX Land Resources, Inc.	81.98
S2	05-15-8	Terry D. Rose, et ux	77.1
S3	05-15-7	Terry D. Rose, et ux	4.5
S4	05-15-6.1	Joseph J. Kramar, et ux	39.40
S5	05-15-6	Joseph J. Kramar, et ux	42.5
S6	05-15-13	CNX Land Resources	11.0
S7	05-15-14	John David Petrock, et ux	25.0
S8	05-15-2	John David Petrock, et ux	5.0
S9	05-15-1	Marcus Sharp & David Schlabach	121.8
S10	05-15-3	Joseph J. Kramar, et ux	56.16
S11	05-11-12	Joseph J. Kramar, et ux	43.2188
S12	05-11-13	Joy D. Garman & Arlin Gatts	12.29
S13	05-11-11.3	Herman D. & Herman J. Lantz	43.96
S14	05-11-14.1	Dennis F. Moore, et ux	1.056
S15	05-11-16	Keith E. Haught, et al	83.674
S16	05-11-17.2	Brenda & Michael Bryan	11.504
S17	05-11-17	Kevin R. Corley, et ux	36.13
S18	05-12-11	Wesley Bryan & Wesley Bryan II	52.478
S19	05-11-2.2	Joshua A. Myers	2.193
S20	05-11-2.1	Walter C. & Cheryl A. Rine	1.19
S21	05-11-1.1	Larry W. Dunlap, et al	34.405
S22	05-11-1.4	Larry W. Dunlap, et al	32.493
S23	05-12-9	Lionel & Mary Lee Persinger	10.15
S24	05-7-39	Lionel L. Persinger, et ux	57.0
S25	05-7-33	William N. Roupe	24.60
S26	05-7-31	William N. Roupe	43.147
S27	05-11-1.7	William S. & Mary K. Adams	8.0
S28	05-11-1.5	Paul White	3.507
S29	05-11-2	Walter C. & Cheryl A. Rine	42.367
S30	05-11-3	Kevin R. Corley, et al	13.18
S31	05-11-5	Kevin R. Corley, et ux	10.36
S32	05-11-5.1	James R. Anderson, et ux	0.205
S33	05-11-4	David H. Arrick, et ux	31.5
S34	05-11-5.3	Robert Harris Arrick, et ux	3.0
S35	05-11-6	Robert & Rebecca Arrick	1.29
S36	05-11-7	Baptist Cemetery	1.0
S37	05-11-16.3	Kegan Michael Haught - Life	3.265
S38	05-11-8	Baptist Church	0.8
S39	05-11-9.3	Joseph M. Haught & Steven Haught	16.3
S40	05-11-9.5	Southern Country Farms, Inc	2.559
S41	05-11-9.6	Southern Country Farms, Inc	2.488
S42	05-11-9.9	Leonard L. Parsons, et ux	5.89
S43	05-11-9	Edwin C. & Kimberly A. Miller	41.773
S44	05-11-11.4	Brad M. & Amanda J. Blake	15.193
S45	05-11-11	Brad M. & Amanda J. Blake	5.0
S46	05-11-11.1	Nellie Marie & Robert W. Spencer	5.813
S47	05-11-9	Edwin C. & Kimberly A. Miller	41.773
S48	05-11-9.10	John A. & Janet L. Beucke	2.348
S49	05-11-9.2	Michael R. Bryan	3.143
S50	05-11-9.8	Sean F. Moore	2.070
S51	05-11-9.7	Sean F. Moore	2.026
S52	05-11-9.1	Jack Shepard Huggins Jr., et al	10.92
S53	05-11-9.4	Jack S. Huggins, et al	4.129
S54	05-11-11.2	Wesley R. Bryan & Wesley R. Bryan II	25.031
S55	05-10-16.4	Melvin E. Ferguson & Elizabeth Ferguson	30.87
S56	05-10-15.1	Donald T. Miller	2.095
S57	05-16-3.2	Jimmy Lee Ostrander Jr., Sheena Lynn Ostrander & Brody Ray Ostrander	1.435
S58	05-16-3.1	Dennis E. Jackson, et ux	0.27
S59	05-16-2	Christian Church	0.19
S60	05-16-1	Christian Church	0.50
S61	05-16-23.1	Ray E. Minor, et ux	2.0
S62	05-16-23.3	Greg & Christina Riddle	1.0
S63	05-16-24	Alan M. Beyser, et ux	1.083
S64	05-16-23.2	Alan M. Beyser, et ux	1.726
S65	05-16-23.4	Michael R. & Brenda K. Bryan	3.0
S66	05-16-23	CNX Land Resources, Inc.	60.138
S67	05-11-16.2	Joseph Haught	2.181
S68	05-11-16.1	Susan Smith, LE	0.876
S69	05-11-25	Owen Michael Barr	0.598
S70	05-11-23	Owen Michael Barr	0.845
S71	05-11-24	Charles Edward Furbee, et ux	0.603
S72	05-11-17.1	David Gray	0.297
S73	05-11-22	David Gray	0.353
S74	05-11-18	David E. Gray	0.569
S75	05-11-19	David E. Gray	0.532
S76	05-11-20	David E. Gray	0.569
S77	05-11-5.2	Rickey & Victoria Cross	1.0
S78	05-11-1.2	Jay A. Conner, et ux	5.824
S79	05-8-9.1	Scott E. Jackson, Tammy S. South & Marion Jackson	1.957
S80	05-11-1.6	Debra Morris	2.093
S81	05-11-1	William N. & Virginia A. Roupe	4.527
S82	05-11-1.3	Jay A. Conner, et ux	4.256

05/19/2019



**TUG HILL
OPERATING**

OPERATOR'S
WELL #: Bryan N-13HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV

WELL PLAT
PAGE 2 OF 4
DATE: 12/27/2017
REVISED DATE:
09/11/2018

BRYAN LEASE
UTICA UNIT - 397.0538 AC±
WELL N-13HU
TUG HILL OPERATING

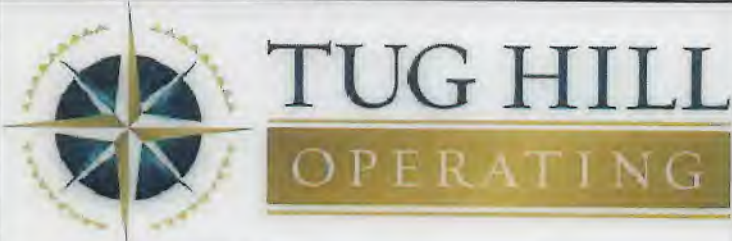
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Table with columns: LEASE NO., TAGS, PARCEL, OIL & GAS ROYALTY OWNER, DEED BOOK, PAGE. Continuation of lease details from the previous table.

05/10/2019



P.S. 708 David L Jackson



OPERATOR'S WELL #: Bryan N-13HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV

WELL PLAT
PAGE 3 OF 4
DATE: 01/10/2018
REVISED DATE: 09/11/2018

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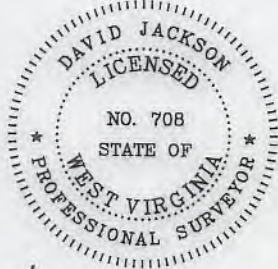
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BRYAN LEASE
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05/10/2019



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WELL PLAT
PAGE 4 OF 4
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