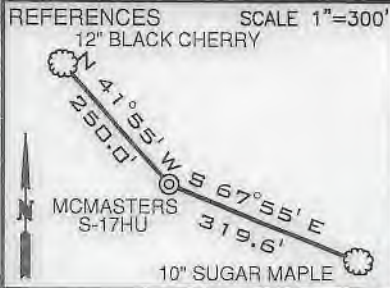
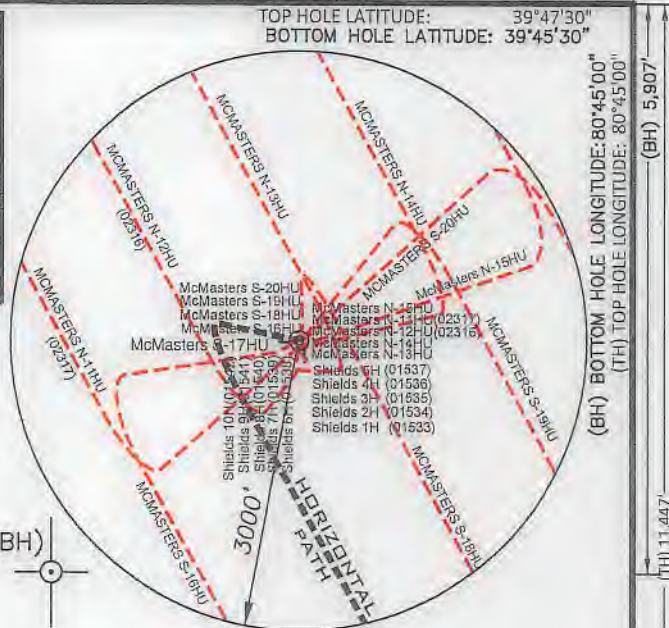


**MCMASTERS LEASE
WELL S-17HU
300.3926± ACRES**

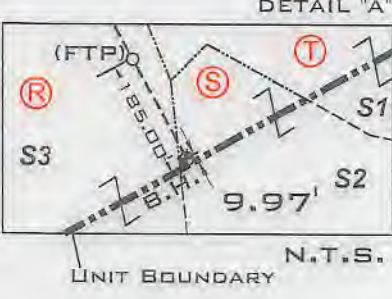


LINE	BEARING	DISTANCE
L1	N 74°01' W	1416.19'
L2	S 39°24' W	1350.54'
L3	N 79°02' W	34.93'
L4	N 77°59' W	834.91'



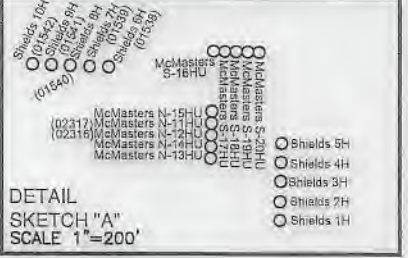
GRID NORTH

(BH) BOTTOM HOLE LONGITUDE: 80°45'00"
(TH) TOP HOLE LONGITUDE: 80°45'30"



LEGEND

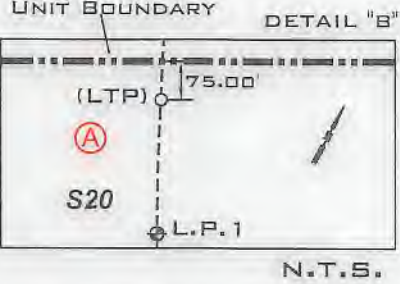
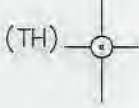
- LEASE TRACTS
- SURFACE TRACTS
- WELL LATERAL
- POINT PLEASANT LEGS
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)
- 400' BORE PATH OFFSET
- 500' WELL BORE OFFSET
- (FTP) PROPOSED FIRST TAKE POINT
- (LTP) PROPOSED LAST TAKE POINT



(+) 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, 2019. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
- WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
- ALL DEEP WELLS SHOWN ON THIS PLAT.
- BOUNDARIES ALONG ROADWAYS ARE BASED UPON MEMORANDUM BY DICKIE, MCCAMEY & CHILCOTE, P.C. FILE 0058304.0401147



CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	S 68°00' W	25.26'	19.09'	27.59'
C2	S 09°59' W	32.08'	77.14'	32.31'
C3	S 09°10' E	97.47'	398.12'	97.71'
C4	S 18°56' E	255.41'	1946.44'	265.61'
C5	S 25°53' E	405.99'	3575.21'	406.20'

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,401,175.26
E) 518,200.94

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,400,997.32
E) 518,020.85

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,241.30
E) 519,596.24

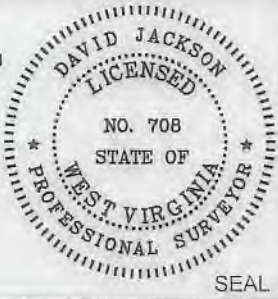
FILE NUMBER _____
DRAWING NUMBER: MCMASTERS_S-17HU_REV2
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1/200
PROVEN SOURCE OF ELEVATION: SUBMETER MAPPING
GRADE GPS

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



WVDEP
OFFICE OF OIL & GAS
801 57TH STREET, SE
CHARLESTON, WV 25304

DATE: FEBRUARY 10, 2020
REVISED: JULY 31, 2020
OPERATORS WELL NO. MCMASTERS S-17HU
API WELL NO. 47-051-02338 HGA Deep
STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___
LOCATION ELEVATION 1207.50' WATERSHED (HUC 10) FISH CREEK (HUC-10)
DISTRICT FRANKLIN COUNTY MARSHALL
QUADRANGLE POWHATAN POINT 7.5' LEASE NUMBER SEE WW-6A1 FORM

SURFACE OWNER ROBERT L. SHIELDS, ET AL ACREAGE 104.11
OIL & GAS ROYALTY OWNER ROBERT L. SHIELDS, ET AL LEASE ACREAGE 104.11
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: 11,427' TMD: 22,100'
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

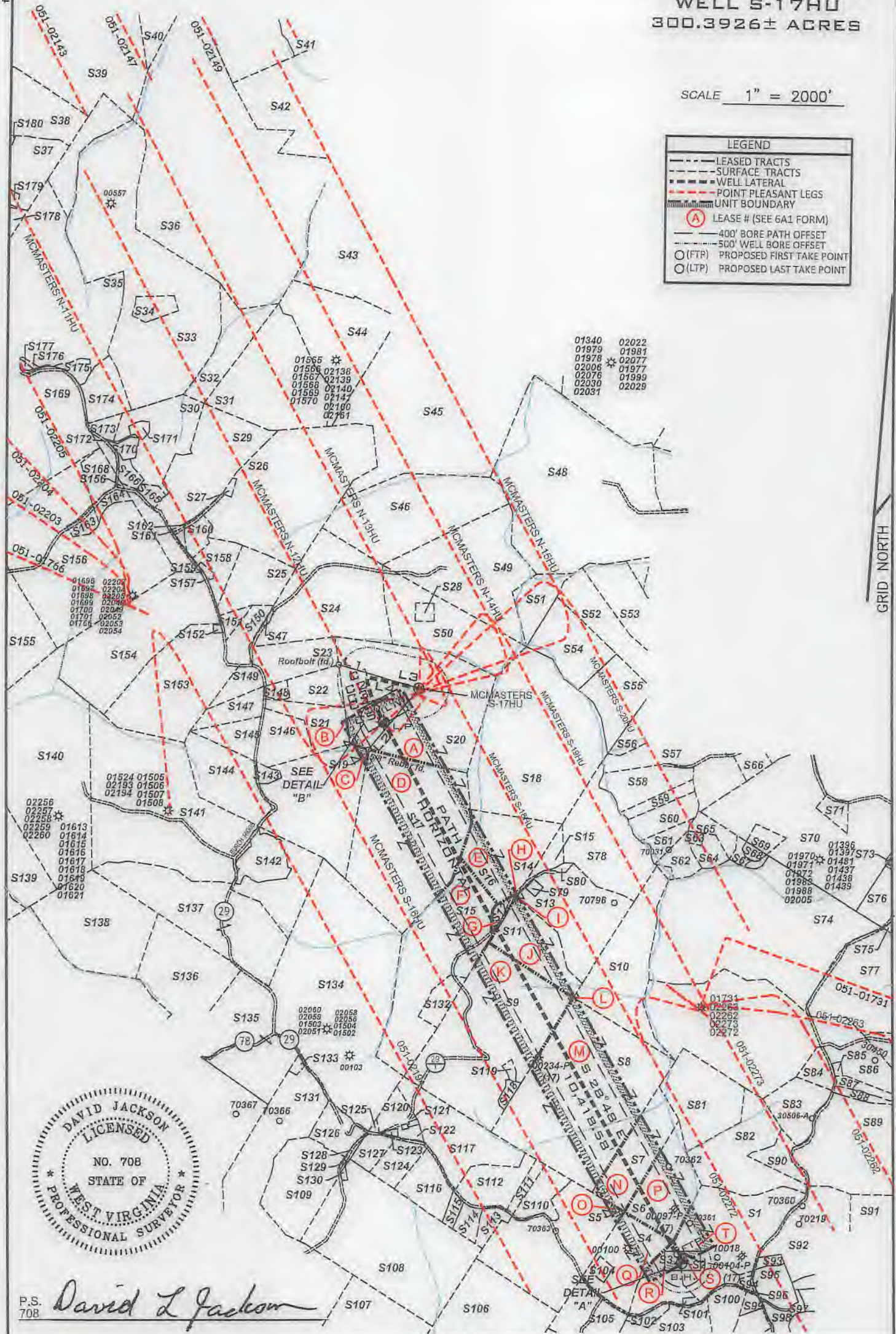
COUNTY NAME PERMIT

MCMASTERS LEASE WELL S-17HU 300.3926± ACRES

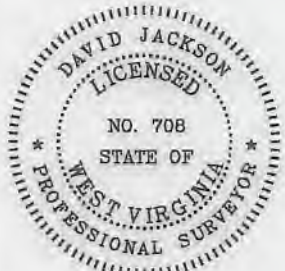
SCALE 1" = 2000'

LEGEND

- LEASE TRACTS
- - - SURFACE TRACTS
- - - WELL LATERAL
- - - POINT PLEASANT LEGS
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)
- 400' BORE PATH OFFSET
- 500' WELL BORE OFFSET
- (FTP) PROPOSED FIRST TAKE POINT
- (LTP) PROPOSED LAST TAKE POINT



GRID NORTH



P.S. 708 *David L Jackson*



TUG HILL OPERATING

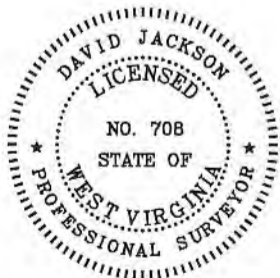
OPERATOR'S
WELL #: MCMASTERS S-17HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-02538 Dec P

WELL PLAT
PAGE 2 OF 4
DATE: 02/10/2020
REVISED: 07/31/2020

**MCMASTERS LEASE
WELL S-17HU
300.3926± ACRES**

Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S1	T 05-23-11.1	John H. & Sonya D. Holliday	46.482
S2	S 05-23-11.4	Kenneth L. Lemons, Trustee for Jeffrey G. Hudson	10.879
S3	R 05-23-13	Linda D. Greathouse	14.24
S4	Q 05-23-9.2	Linda D. Greathouse	25.58
S5	O 05-23-14	Dominion Transmission Inc.	59.5
S6	P 05-23-9.3	Linda D. Greathouse	17.5
S7	N 05-23-08	Carl David & Suzanne L. Guseman	29.5
S8	M 05-23-05	Daniel D. Rhyand	118.5
S9	K 05-23-04	Abe J. Hochstetler	100.7
S10	L 05-23-06	James A. Channing Et Al	48.0
S11	J 05-23-03	Abe J. Hochstetler	50.0
S12	G 05-23-2.1	William L. & Janice M. Wayne	2.364
S13	I 05-18-21	Curtis E. & Michelle J. Hall	43.119
S14	H 05-18-21.1	Rodney & Rhonda Jackson	5.47
S15	F 05-23-02	Danielle D. Lilley	77.636
S16	E 05-18-22	Rodney & Rhonda Jackson	30.345
S17	D 05-18-24	Duane Brunn	102.0
S18	05-18-23	XCL Midstream Operating LLC	110.0
S19	C 05-19-18	Mark E. Yoho Et Ux	55.948
S20	A 05-18-02	Robert L. Shields Et Al	104.11
S21	B 05-19-17	Mark A. Yoho	15.263
S22	05-19-16	Robert L. Shields & Donald Shields	11.612
S23	05-19-14	James & Sherry Beegle	18.356
S24	05-18-1	Diana Henry Haynes & Carol C. Henry	62.908
S25	05-19-30	Ernie & Tammy Anderson	19.037
S26	05-19-13	Rona Lee Rice & Charles Franklin McCardle	94.925
S27	05-19-13.1	Donald Shields	0.800
S28	05-18-3.1	Nikki L. & Jonathan Stevens	2.223
S29	05-19-8	CNX Gas Company LLC	40.0
S30	05-19-7	Olan V. Rutan Et Ux	32.4801
S31	05-14-15	Robert L. Shields Et Al	53.0
S32	05-14-14	Robert L. Shields Et Al	29.05
S33	05-14-12	Dale R. Galleher Et Al	135.100
S34	05-14-12.1	Henry Wilson Plunkert Jr.	5.0
S35	05-14-10	Wanda P. Rine, Life	126.03
S36	05-14-13	Ralph D. & Sally Jane Hoyt	222.18
S37	05-14-9.2	Maria T. Flores	25.0
S38	05-12-21	Edward L. Gibson-Life	73.436
S39	05-12-14	Linda Hamilton Et Al	117.495
S40	05-12-12.1	Linda L. Persinger Et Ux	148.09
S41	05-12-11	Wesley R. Bryan & Wesley R. Bryan II	52.478
S42	05-11-15	Lionel L. Persinger Ex Ux	93.0
S43	05-15-01	Marcus Sharp & Angela R. Schlabach	121.0
S44	05-15-15	Robert L. Shields Et Al	49.02

Lease No.	Tags	Parcel	Lessor	Book	Page
10*14116	A	5-18-2	DONALD SHIELDS	669	367
10*14295	B	5-19-17	MARK E. YOHO AND MARY YOHO, HUSBAND AND WIFE	655	546
10*14295	C	5-19-18	MARK E. YOHO AND MARY YOHO, HUSBAND AND WIFE	655	546
10*14295	D	5-18-24	MARK E. YOHO AND MARY YOHO, HUSBAND AND WIFE	655	546
10*14022	E	5-18-22	HOWARD N WAYNE SR AND DENISE D WAYNE	665	384
10*14022	F	5-23-2	HOWARD N WAYNE SR AND DENISE D WAYNE	665	384
10*19145	G	5-23-2.1	WILLIAM L WAYNE & JANICE M WAYNE	706	87
10*17145	H	5-18-21.1	JAMES J. CAMPBELL AND BETTY J CAMPBELL	685	458
10*17145	I	5-18-21	JAMES J. CAMPBELL AND BETTY J CAMPBELL	685	458
10*17145	J	5-23-3	JAMES J. CAMPBELL AND BETTY J CAMPBELL	685	458
10*14849	K	5-23-4	DAVID GUSTELY	806	265
10*17186	L	5-23-6	ROBERT J HENRY	708	51
10*14847	M	5-23-5	LETHA RUCKMAN	806	270
10*17192	N	5-23-8	ROBERT J HENRY	716	193
10*18343	O	5-23-14	DOMINION ENERGY TRANSMISSION INC	936	79
10*17189	P	5-23-9.3	ROBERT J HENRY	716	197
10*17189	Q	5-23-9.2	ROBERT J HENRY	716	197
10*14786	R	5-23-13	TWILA O WHIPKEY	799	61
10*14786	S	5-23-11.4	TWILA O WHIPKEY	799	61
10*14786	T	5-23-11.1	TWILA O WHIPKEY	799	61



P.S. 708

David L Jackson



**TUG HILL
OPERATING**

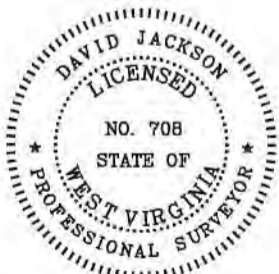
OPERATOR'S
WELL #: MCMASTERS S-17HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-02338 Deep

WELL PLAT
PAGE 3 OF 4
DATE: 02/10/2020
REVISED: 07/31/2020

**MCMASTERS LEASE
WELL S-17HU
300.3926 ACRES**

Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S45	05-15-12	John David Petrock & Thomas Andrew Petrock	150.23
S46	05-15-11	Diana Henry Haynes & Carol Henry	65.59
S47	05-18-1.1	Charles F. & Diana L. Haynes	0.392
S48	05-15-10	Mark Stanley Ruckman	153.75
S49	05-18-04	Olan & Patricia Rutan	65.89
S50	05-18-03	Olan V. & Patricia E. Rutan	43.677
S51	05-18-05	Terry Melott	8.14
S52	05-18-15.3	Charles Yeater	26.44
S53	05-18-15.4	Edward Lee Burge, Jr.	22.34
S54	05-18-06	Charles Yeater	26.0
S55	05-18-07	Charles Yeater	24.22
S56	05-18-16	Charles Yeater	17.768
S57	05-18-13	Southern Sountry Farms Inc.	11.054
S58	05-18-59	Southern Country Farms Inc.	15.79
S59	05-18-30	Mary & Daniel Robinson	5.46
S60	05-18-13.10	Carl Berg	10.88
S61	05-18-29	Carl G. Berg	5.319
S62	05-18-31	Kenneth E. Rastall	6.94
S63	05-18-32.1	Lori D. Carpenter	5.545
S64	05-18-32	Kenneth E. Rastall	5.335
S65	05-18-13.8	Lori D. Carpenter	5.545
S66	05-18-33	Sandra & Glenn Whister	5.343
S67	05-17-12	James & Jill C. Corley	3.33
S68	05-17-12.1	Williams Ohio Valley Midstream LLC	1.67
S69	05-17-10.5	Williams Ohio Valley Midstream LLC	4.24
S70	05-17-10	James A. Corley Et Al	92.61
S71	05-17-10.1	James A. & Jill C. Corley	4.51
S72	05-17-9.1	Jeri J. White	1.0
S73	05-17-9.2	Jeri J. White	7.136
S74	05-17-11	Kenneth N. Corley Et Ux	120.0
S75	05-17-9.4	Vicki L. Bowen	60.3
S76	05-17-9.3	James A. & Corley Et Ux	12.478
S77	05-17-11.1	Randy W. Francis Et Ux	67.0
S78	05-18-20	Wayne E. Channing Et Al	75.6
S79	05-18-21.2	David P. Lassen	1.0
S80	05-18-21.3	Hilda M. Giberson-Wayt, Life	0.811
S81	05-23-8.1	William & Virginia Rouse	34.0
S82	05-24-5.4	Thomas V. Tuttle Et Ux	38.244
S83	05-24-5.5	Sonny & Linda Lou Tagg	17.194
S84	05-23.7.2	Florella Lou Weigand	6.354
S85	05-23-7.1	Florella Lou Weigand	0.549
S86	P/O 05-23-7	Terry E. Simms Et Ux	123.097
S87	05-24-5.1	James D. Watkins Et Ux	4.6
S88	05-24-5.2	James D. Watkins Et Ux	3.151
S89	05-24-5	Robert C. Francis Et Ux (Life)	145.78
S90	05-24-3.1	T.H. Exploration II LLC	5.50

Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S91	05-24-6	Terry E. Simms Et Ux	42.84
S92	05-23-10	Terry E. Simms Et Ux	38.95
S93	05-23-11.7	Bryan L. Huggins	1.835
S94	05-23-11.2	Evelyn Hudson	1.154
S95	05-23-11	Roy F. Yoho	9.475
S96	05-23-11.6	T.H. Exploration II, LLC	0.094
S97	05-25-20.2	James M. Zambotti	1.347
S98	05-25-20.3	James A. & Jo C. Estep	4.49
S99	05-23-11.5	Roy F. Yoho	2.25
S100	05-23-11.3	Colin R. Yoho	11.29
S101	05-23-13.1	James R. & Pamela J. Ferrell	0.75
S102	05-23-12	Mark A. Yoho	3.05
S103	05-26-11	Mark A. Yoho	89.25
S104	05-23-9.4	Jackson R. Davis Sr. & Deanna L. Davis	2.087
S105	05-23-9.1	John W. Van Orden Et Ux	23.376
S106	05-26-7	Dominion Transmission, Inc.	71.0
S107	05-26-5	Michael J. Wiley Et Al	65.0
S108	05-23-26	Michael J. Wiley Et Al	101.57
S109	05-23-27	Michael J. Wiley Et Al	33.14
S110	05-23-15	Henry Virginia Ethel Estate	15.5
S111	05-23.16.1	Donald B. Henry	1.97
S112	05-23-16	Roy Friend Yoho Sr.	18.03
S113	05-23-17.3	William & Katherine Flewelling	5.018
S114	05-23-17	Tammy & Thomas E. Brown	4.62
S115	05-23-17.4	Tammy D. Meadows	2.605
S116	05-23-17.2	Dick Rowan Jr. & Carol J. Rowan	14.920
S117	05-23-18	Abe J. Hochstetler	35.38
S118	05-23-4.1	XCL Midstream Operating LLC	2.16
S119	05-23-4.2	XCL Midstream Operating LLC	1.17
S120	05-23-18.1	Mark A. Yoho	7.8
S121	05-23-19	Doly Cemetery	1.0
S122	05-23-20	Christian Church	0.19
S123	05-23-21	Mark A. & Mark E. Yoho	0.588
S124	05-23-17.1	Curtis E. Hall Et Ux	10.051
S125	05-23-29	James Wiley	0.25
S126	05-23-28.2	Mark W. & Carolyn L. Tennant	10.8
S127	05-23-22	Daniel D. Rhyand & Laurel R. Greene	6.25
S128	05-23-23	Michael J. Wiley Et Al	1.0
S129	05-23-24	Michael J. Wiley Et Al	0.25
S130	05-23-25	Arthur A. Wiley	0.43
S131	05-23-28	Gregg D. Minor	39.43
S132	05-23-2.2	Jessica N. & Andrew L. Fox	7.636
S133	05-23-28.1	Troy W. & Erin M. Thomas	1.0
S134	05-23-01	Patricia Accetolo Et Al	146.66
S135	05-22-7.1	T.H. Exploration II LLC & Atinum Marcellus LLC	20.68
S136	05-22-08	T.H. Exploration III LLC	48.44
S137	05-22-06	CNX Gas Company LLC	64.70
S138	05-22-10	T.H. Exploration III LLC	58.40
S139	05-22-17	CNX Gas Company LLC	37.5
S140	05-22-04	CNX Gas Company LLC	159.05
S141	05-22-05	CNX Gas Company LLC	134.425
S142	05-22-5.1	Williams Ohio Valley Midstream LLC	12.875
S143	05-19-18.1	Mark E. Yoho Et Ux	2.57
S144	05-19-18.2	Paul V. & Carol Neely	32.672
S145	05-19-25	David E. Yoho & Mark E. Yoho	9.976
S146	05-19-24	Mark E. Yoho	15.436
S147	05-19-26	Roger J. & Beth E. James	9.977
S148	05-19-16.1	Robert L. & Rebecca A. Shields	2.307
S149	05-19-27	David E. Yoho & Mark E. Yoho	7.041
S150	05-19-31	Charles F. & Diana L. Haynes	8.779
S151	05-19-30.1	Eric R.W. & Ashley A. Huggins	2.911
S152	05-19-32	Jasper N. Burch Et Al-Trustees	0.397
S153	05-19-28	David E. Yoho & Mark E. Yoho	56.899
S154	05-19-19	Russell Blake Et Ux	66.4
S155	05-19-21	Sammy E. Whilatch Et Al	116.45
S156	05-19-20	Wilbert H. Bungard Et Ux	114.989
S157	05-19-15	Carly Herran	0.72
S158	05-19-29	Ernie L. & Tammy L. Anderson	10.961
S159	05-19-09	Penny Elaine Ashcraft	10.44
S160	05-19-12	Ernie L. Anderson Et Ux	5.33
S161	05-19-10	Ernie L. Anderson Et Ux	0.8125
S162	05-19-11	Ernie L. Anderson Et Ux	0.08
S163	05-19-20.3	Sidney Harmon	3.715
S164	05-19-20.1	John J. Ebert-Life	3.848
S165	05-19-7.5	Adam T. & Jesse L. Robinson	2.64
S166	05-19-7.1	Robert L. Shields Et Ux	3.399
S168	05-19-20.2	Cassandra L. Harmon	7.448
S169	05-19-05	Margirene Keefe	126.03
S170	05-19-7.2	Olan Rutan	2.783
S171	05-19-7.4	Olan V. Rutan, Et Ux	1.787
S172	05-19-7.3	Olan V. Rutan Et Ux	0.341
S173	05-19-06	Belinda Kay Meadows, Rebecca Ann Shields & Olan V. Rutan	5.1099
S174	05-14-11	Dale R. Gallaher Et Al	12.0
S175	05-14-10.4	Adam R. & Jesse L. Robinson	3.343
S176	05-14-10.2	Ida Belle Rutan-Life, Ralph R. Hoyt	0.495
S177	05-14-10.1	Ida Belle Rutan-Life, Ralph R. Hoyt	0.5
S178	05-14-9.5	Maria T. Flores	6.024
S179	05-14-9.1	Maria T. Flores	2.882
S180	05-12-17	Joni Lyn Leon	0.752



P.S. 708

David L Jackson

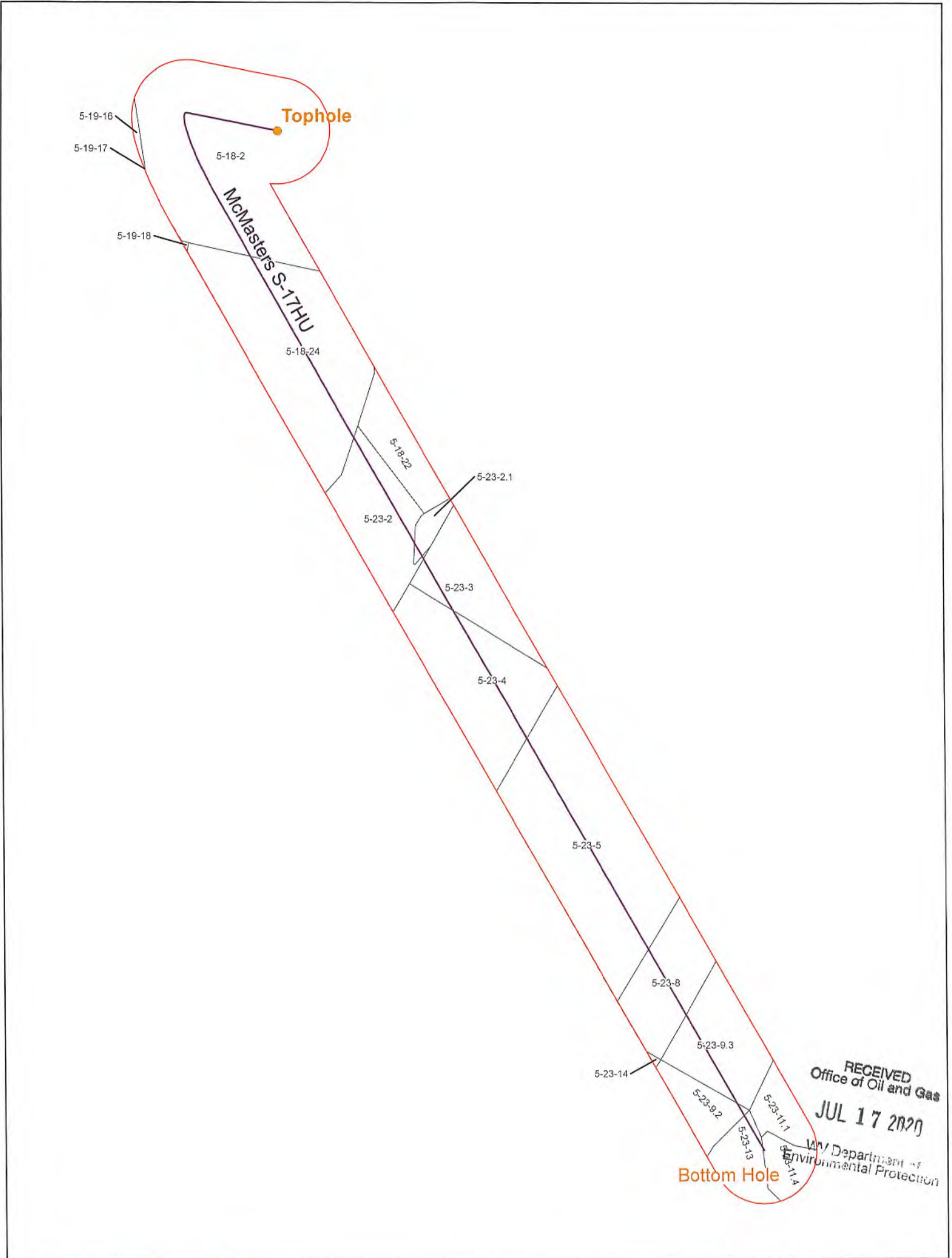


**TUG HILL
OPERATING**

OPERATOR'S
WELL #: MCMASTERS S-17HU
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV
API #: 47-051-02338 ^{HCA} _{Deep}

WELL PLAT
PAGE 4 OF 4
DATE: 02/10/2020
REVISED: 07/31/2020

McMasters S-17HU



RECEIVED
Office of Oil and Gas
JUL 17 2020
WV Department of Environmental Protection

Coordinate System: NAD 1983 UTM Zone 18E
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 1,240,410.0000
False Northing: 0.0000
Central Meridian: -81.0000
Scale Factor: 0.9999
Latitude of Origin: 0.0000
Units: Feet U.S.

CONFIDENTIAL



- Utica Well
- 500' Buffer



McMasters S-17HU
Operators within 1500 Feet of Well Borehole

