

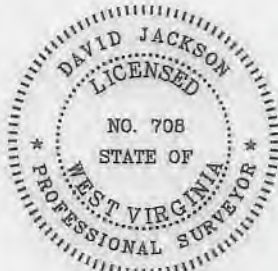
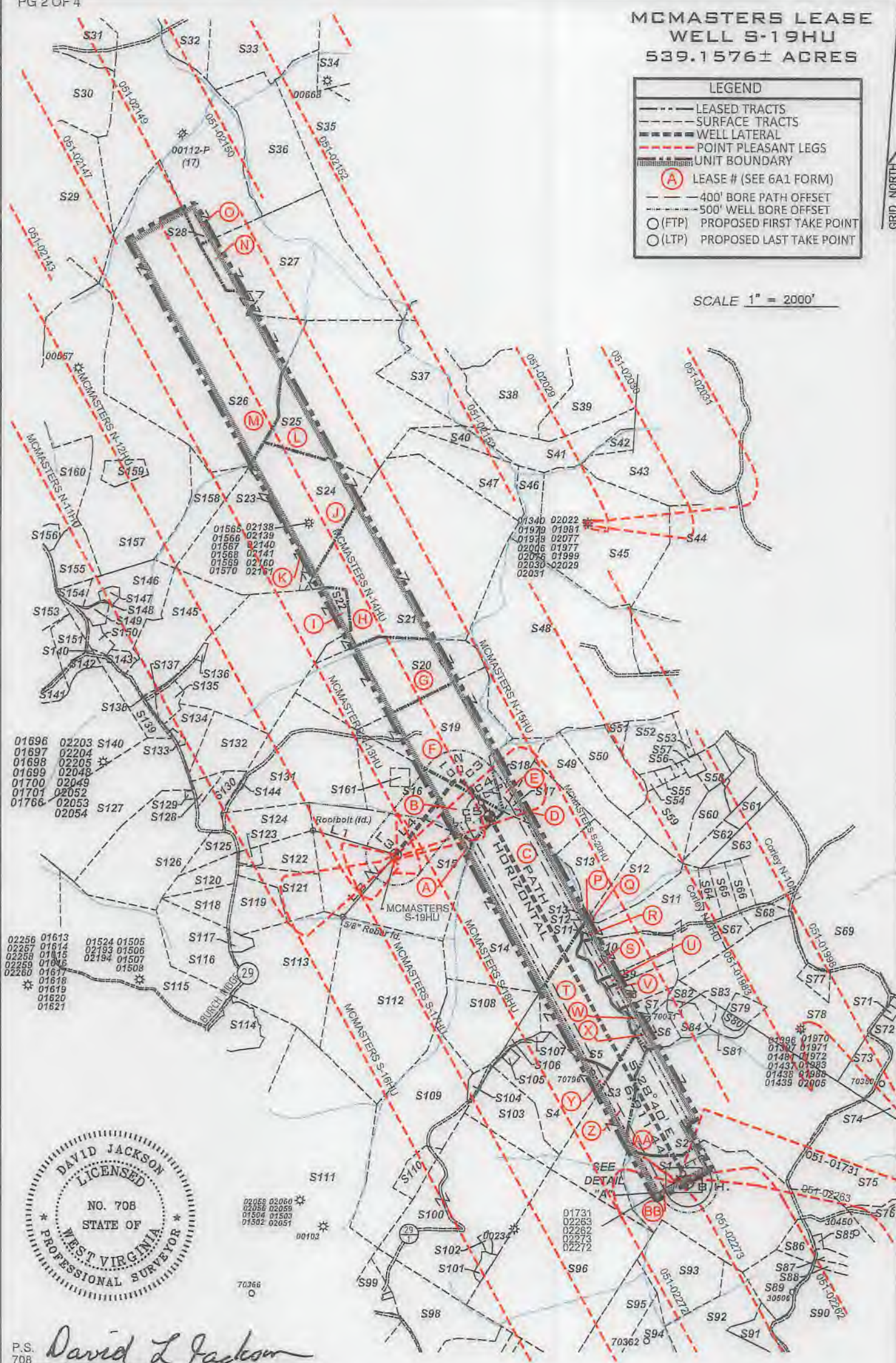
# MCMASTERS LEASE WELL S-19HU 539.1576± ACRES

**LEGEND**

- LEASED 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

SCALE 1" = 2000'

GRID NORTH



P.S. 708 *David L Jackson*



## TUG HILL OPERATING

OPERATOR'S  
WELL #: MCMASTER S-19HU  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV  
API #: 47-051-02340

WELL PLAT  
PAGE 2 OF 4  
DATE: 01/27/2020  
REVISED: 07/29/2020

**MCMASTERS LEASE  
WELL S-19HU  
539.1576± ACRES**

Number	TAX MAP - PARCEL	ADJOINER OWNER	ACRES	Number	TAX MAP - PARCEL	ADJOINER OWNER	ACRES
S1	BB 05-23-07	Terry E. Simms Et Ux	123.09	S66	05-18-13.6	Glenn Eugene Whisler Et Ux	5.384
S2	AA 05-17-11	Kenneth N. Corley Et Ux	120.0	S67	05-18-33	Sandra & Glenn Whisler	5.343
S3	Z 05-23-06	James A. Channing Et Al	48.0	S68	05-18-48	Marvin Dean Roberts Et Ux & Brad & Bridget Williams	2.92
S4	Y 05-18-21	Curtis E. & Michelle J. Hall	43.119	S69	05-17-10.3	James A. & Jill C. Corley	37.39
S5	T 05-18-20	Wayne E. Channing Et Al	75.60	S70	05-17-09	Lloyd Richard Oliver Et Ux	61.6
S6	X 05-18-31	Kenneth E. Rastall	6.94	S71	05-17-9.1	Jeri J. White	1.0
S7	W 05-18-29	Carl G. Berg	5.319	S72	05-17-9.2	Jeri J. White	7.136
S8	V 05-18-13.10	Carl Berg	10.88	S73	05-17-9.3	James A. Corley Et Ux	12.478
S9	U 05-18-30	Mary & Daniel Robinson	5.46	S74	05-17-9.4	Vick L. Bowen	60.3
S10	S 05-18-59	Southern Country Farms Inc.	15.79	S75	05-17-11.1	Randy W. Francis Et Ux	67.0
S11	R 05-18-13	Southern Country Farms Inc.	11.054	S76	05-24-01	Linda L. Hendrickson	175.0
S12	Q 05-18-16	Charles Yeater	17.768	S77	05-17-10.1	James A. & Jill C. Corley	4.51
S13	P 05-18-07	Charles Yeater	24.22	S78	05-17-10	James A. Corley Et Al	92.61
S14	C 05-18-23	XCL Midstream Operating LLC	110.0	S79	05-17-10.5	Williams Ohio Valley Midstream LLC	4.24
S15	A 05-18-02	Robert L. Shields Et Al	104.11	S80	05-17-12.1	Williams Ohio Valley Midstream LLC	1.67
S16	B 05-18-03	Olan V. & Patricia E. Rutan	43.677	S81	05-17-12	James A. & Jill C. Corley	3.33
S17	D 05-18-06	Charles Yeater	26.0	S82	05-18-13.8	Lori D. Carpenter	5.545
S18	E 05-18-05	Terry Melott	8.14	S83	05-18-32.1	Lori D. Carpenter	5.545
S19	F 05-18-04	Olan & Patricia Rutan	65.89	S84	05-18-32	Kenneth E. Rastall	5.335
S20	G 05-15-11	Diana Henry Haynes & Carol Henry	65.59	S85	05-23-7.1	Florella Lou Weigand	0.549
S21	H 05-15-12	John David Petrock & Thomas Andrew Petrock	150.23	S86	05-23-7.2	Florella Lou Weigand	6.354
S22	I 05-19-13	Rona Lee Rice & Charles Franklin McCordle	94.925	S87	05-24-5.1	James D. Watkins Et Ux	4.60
S23	K 05-14-15	Robert L. Shields Et Al	53.0	S88	05-24-5.2	James D. Watkins Et Ux	3.151
S24	J 05-15-15	Robert L. Shields Et Al	49.0	S89	05-24-5.5	Sonny & Linda Lou Tagg	17.194
S25	L 05-15-01	Marcus Sharp & Angela R. Schlabach	121.0	S90	05-24-05	Robert C. Francis, Et Ux-Life	145.78
S26	M 05-14-13	Ralph D. & Sally Jane Hoyt	222.18	S91	05-24-3.1	T.H. Exploration II LLC	5.50
S27	N 05-11-15	Lionel L. Persinger Et Ux	93.0	S92	05-24-5.4	Thomas V. Tuttle Et Ux	38.224
S28	O 05-12-12.1	Lionel L. Persinger Et Ux	148.09	S93	05-23-8.1	William & Virginia Roupe	34.0
S29	05-12-14	Linda Hamilton Et Al	117.495	S94	05-23-9.3	Linda D. Greathouse	17.5
S30	05-12-13	Linda Hamilton Et Al	41.887	S95	05-23-08	Carl David & Suzanne L. Guseman	29.5
S31	05-12-08	Anita Ray Miller-Life	100.35	S96	05-23-05	Daniel D. Rhyand	118.5
S32	05-12-12	Lionel L. Persinger Et Ux	45.0	S97	05-23-16	Roy Friend Yoho Sr.	18.03
S33	05-11-21	Karen Reed Et Al	112.67	S98	05-23-18	Abe J. Hochstetler	35.38
S34	05-11-17	Kevin Corley Et Ux	36.13	S99	05-23-18.1	Mark A. Yoho	7.8
S35	05-11-14	Hirams Estate Family LTD LLP	158.054	S100	05-23-04	Abe J. Hochstetler	100.7
S36	05-12-11	Wesley R. Bryan & Wesley R. Bryan II	52.478	S101	05-23-4.1	XCL Midstream Operating LLC	2.16
S37	05-15-03	Joseph J. Kramer Et Ux	36.10	S102	05-23-4.2	XCL Midstream Operating LLC	1.17
S38	05-15-05	Joseph J. Kramer Et Ux	35.0	S103	05-23-03	Abe J. Hochstetler	50.0
S39	05-15-06	Joseph J. Kramer Et Ux	42.5	S104	05-23-2.1	William L. & Janice M. Wayne	2.364
S40	05-15-02	John David Petrock & Thomas Andrew Petrock	5.0	S105	05-18-21.2	David P. Lassan	1.0
S41	05-15-6.1	Joseph J. Kramer Et Ux	39.40	S106	05-18-21.1	Rodney & Rhonda Jackson	5.47
S42	05-15-07	XCL Midstream Operating LLC	4.5	S107	05-18-21.3	Hilda M. Gilbertson-Wayt - Life	0.811
S43	05-15-08	XCL Midstream Operating LLC	77.11	S108	05-18-22	Rodney & Rhonda Jackson	30.345
S44	05-16-23.5	Marshall County Coal Company	15.09	S109	05-23-02	Danielle D. Lilley	77.636
S45	05-15-09	CNX Land Resources Inc.	81.98	S110	05-23-2.2	Jessica N. & Andrew L. Jones	7.636
S46	05-15-13	CNX Land Resources Inc.	11.0	S111	05-23-01	Patricia Accetollo Et Al	146.66
S47	05-15-14	John David Petrock & Thomas Andrew Petrock	25.0	S112	05-18-24	Duane Brunn	102.0
S48	05-15-10	Mark Stanley Ruckman	153.75	S113	05-19-18	Mark E. Yoho Et Ux	55.948
S49	05-18-15.3	Charles Yeater	26.44	S114	05-22-5.1	Williams Ohio Valley Midstream LLC	12.875
S50	05-18-15.4	Edward Lee Burge Jr.	22.34	S115	05-22-05	CNX Gas Company LLC	134.425
S51	05-18-15	Edward Lee Burge Jr.	2.495	S116	05-19-18.2	Paul V. & Carol Neely	32.672
S52	05-18-11.1	Edward Lee Burge Jr.	18.0	S117	05-19-18.1	Mark E. Yoho Et Ux	2.57
S53	05-18-11.2	Edward Lee Burge Jr.	2.0	S118	05-19-25	David E. Yoho & Mark E. Yoho	9.976
S54	05-18-10.1	David V. Anderson Et Ux	1.65	S119	05-19-24	Mark E. Yoho	15.436
S55	05-18-10.2	David Anderson Et Ux	1.377	S120	05-19-26	Roger J. & Beth E. James	9.977
S56	05-18-10	David & Nancy Anderson	0.907	S121	05-19-17	Mark A. Yoho	15.263
S57	05-18-12	William L. Wayne Et Ux	2.270	S122	05-19-16	Robert L. Shields & Donald Shields	11.612
S58	05-18-15.1	Jason Blair	5.948	S123	05-19-16.1	Robert L. & Rebecca A. Shields	2.307
S59	05-18-15.5	Teresa South	23.547	S124	05-19-14	James & Sherry Beegle	18.356
S60	05-18-13.3	Robert G. Closterman	9.813	S125	05-19-27	David E. Yoho & Mark E. Yoho	7.041
S61	05-18-14	Michael Fincham & Kezia Winters	6.386	S126	05-19-28	David E. Yoho & Mark E. Yoho	56.899
S62	05-18-17	Michael Fincham & Kezia Winters	6.555	S127	05-19-19	Russell Blake Et Ux	66.4
S63	05-18-13.1	Cory A. Holt	9.248	S128	05-19-30.1	Eric R.W. & Ashley A. Huggins	2.911
S64	05-18-34	Jodi & Gary Hall	5.002	S129	05-19-32	Jaspern Burch, Et Al Trustees	0.397
S65	05-18-13.13	Glenn E. & Sandra K. Whisler	5.59	S130	05-19-31	Charles F. & Diana L. Haynes	8.779
				S131	05-18-01	Diana Henry Haynes & Carol C. Henry	62.908
				S132	05-19-30	Ernie & Tammy Anderson	19.037



P.S. 708 *David L Jackson*



**TUG HILL  
OPERATING**

OPERATOR'S  
WELL #: MCMMASTER S-19HU  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV  
API #: 47-051- 02340

WELL PLAT  
PAGE 3 OF 4  
DATE: 01/27/2020  
REVISED: 07/29/2020

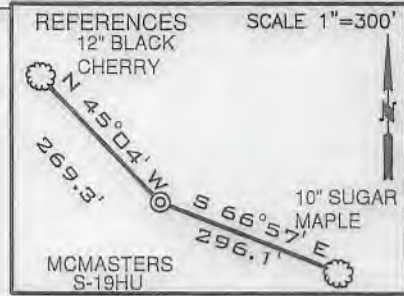
MCMASTERS LEASE  
WELL S-19HU  
539.1576± ACRES

TOP HOLE LATITUDE: 39°47'30"  
BOTTOM HOLE LATITUDE: 39°45'00"

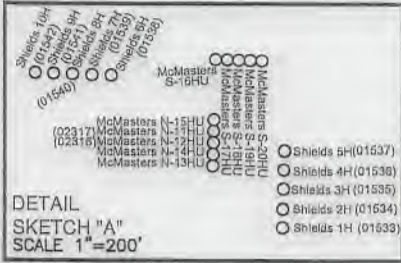
SEE DETAIL "A"



LINE	BEARING	DISTANCE
L1	N 74°15' W	1439.44'
L2	S 40°12' W	1365.44'
L3	N 38°33' E	1530.43'



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



(+) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

LEGEND

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



**SURFACE HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,401,175.20  
E) 518,208.25

**LANDING POINT 1**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,401,378.38  
E) 518,680.82

**BOTTOM HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,399,547.59  
E) 519,721.51

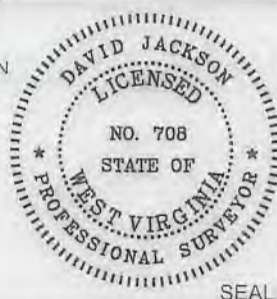
- NOTES
- BORE PATH BASED ON GRID NORTH.
  - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
  - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2019. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
  - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.
  - ALL DEEP WELLS SHOWN ON THIS PLAT.
  - BOUNDARIES ALONG ROADWAYS ARE BASED UPON MEMORANDUM BY DICKIE, MCGAMEY & CHILCOTE, P.C. FILE 0058304.0401147

CURVE	CHORD BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 62°57' E	80.59'	92.01'	83.41'
C2	S 76°15' E	73.89'	161.04'	74.56'
C3	S 54°49' E	129.98'	429.96'	130.48'
C4	S 41°33' E	214.74'	1107.01'	215.08'
C5	S 32°27' E	402.49'	2674.49'	402.87'

FILE NUMBER \_\_\_\_\_  
DRAWING NUMBER: MCMASTERS\_S-19HU\_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

*David L Jackson*



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

DATE: JANUARY 27, 2020  
REVISED: JULY 29, 2020  
OPERATORS WELL NO. MCMASTERS S-19HU  
API WELL NO. 47-051-02340  
STATE COUNTY PERMIT Deep HGA

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: 11,471' TMD: 18,789'  
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

(TH) 11,447'

COUNTY NAME PERMIT

**MCMASTERS LEASE  
WELL S-19HU  
539.1576± ACRES**

Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S133	05-19-15	Carly Herran	0.72
S134	05-19-29	Ernie L. & Tammy L. Anderson	10.961
S135	05-19-12	Ernie L. Anderson Et Ux	5.33
S136	05-14-13.1	Donald Shields	0.8
S137	05-19-11	Ernie L. Anderson Et Ux	0.08
S138	05-19-10	Ernie L. Anderson Et Ux	0.8125
S139	05-19-09	Penny Elaine Ashcraft	10.44
S140	05-19-20	Wilbert H. Bungard Et Ux	114.989
S141	05-19-20.3	Sidney Harmon	3.715
S142	05-19-20.1	John J. Ebert-Life	3.848
S143	05-19-7.5	Adam T. & Jesse L. Robinson	2.64
S144	05-18-1.1	Charles F. & Diana L. Haynes	0.392
S145	05-19-08	CNX Gas Company LLC	40.0
S146	05-14-07	Olan V. Rutan Et Ux	32.4801
S147	05-19-7.4	Olan V. Rutan Et Ux	1.787
S148	05-19-7.3	Olan V. Rutan Et Ux	0.341
S149	05-19-7.2	Olan Rutan	2.783
S150	05-19-7.1	Robert L. Shields Et Ux	3.399
S151	05-19-20.2	Cassandra L. Harmon	7.448
S153	05-19-05	Margirene Keefe	126.03
S154	05-19-06	Belinda Kay Meadows, Rebecca Ann Shields & Olan V. Rutan	5.1099
S155	05-14-11	Dale R. Gallaher Et Al	12.0
S156	05-14-10.4	Adam R. & Jesse L. Robinson	3.343
S157	05-14-12	Dale R. Gallaher Et Al	135.10
S158	05-14-14	Robert L. Shields Et Al	29.05
S159	05-14-12.1	Henry Wilson Plunkert Jr.	5.0
S160	05-14-10	Wanda P. Rine-Life	107.372
S161	05-18-3.1	Nikki L. & Jonathan Stevens	2.223

Lease No.	Tags	Parcel	Lessor	Book	Page
10*14116	A	5-18-2	DONALD SHIELDS	660	367
10*14109	B	5-18-3	MARTHA M RUTAN	668	636
10*14030	C	5-18-23	LOIS V YOHO	665	551
10*17454	D	5-18-6	MARGARET A BONNETT	940	431
10*19140	E	5-18-5	TERREL L MELOTT	704	26
10*19032	F	5-18-4	JAN I ARNOLD AND MARSHA A ARNOLD	813	111
10*19018	G	5-15-11	BENJAMIN FRANKLIN HENRY FREDRICK ALLEN HENRY	746	5
10*19337	H	5-15-12	JACK PETROCK HATTIE PETROCK	741	68
10*14110	I	5-19-13	RONA LEE MCCARDLE	670	472
10*14116	J	5-15-15	DONALD SHIELDS	669	367
10*14116	K	5-14-15	DONALD SHIELDS	669	367
10*14042	L	5-15-1	RALPH B TAYLOR	665	487
10*14067	M	5-14-13	REVA FRANZE	666	51
10*16913	N	5-11-15	LIONEL LAND MARY LEE PERSINGER	976	626
10*16918	O	5-12-12.1	LIONEL LAND MARY LEE PERSINGER	976	617
10*14503	P	5-18-7	IMA LEE YOHO	756	85
10*14503	Q	5-18-16	IMA LEE YOHO	756	85
10*14099	R	5-18-13	SOUTHERN COUNTRY FARMS INC	666	489
10*14099	S	5-18-59	SOUTHERN COUNTRY FARMS INC	666	489
10*21147	T	5-18-20	JAMES A CHANNING & ALICE E CHANNING	951	634
10*14099	U	5-18-30	SOUTHERN COUNTRY FARMS INC	666	489
10*14099	V	5-18-13.10	SOUTHERN COUNTRY FARMS INC	666	489
10*17431	W	5-18-29	SOUTHERN COUNTRY FARMS INC	938	448
10*17780	X	5-18-31	KENNETH F RASTALL	932	434
10*22169	Y	5-18-21	BARBARA KITTLE	954	641
10*17186	Z	5-23-6	ROBERT J HENRY	708	51
10*14126	AA	5-17-11	SHARON M D CAP	697	152
10*14140	BB	5-23-7	TERRY E SIMMS AND DEBORAH L SIMMS	666	529



P.S. 708

*David L Jackson*



**TUG HILL  
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WELL #: MCMASTER S-19HU  
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**WELL PLAT**  
**PAGE 4 OF 4**  
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