

State of West Virginia  
Department of Environmental Protection - Office of Oil and Gas  
Well Operator's Report of Well Work

RECEIVED  
Office of Oil and Gas  
OCT 11 2022  
WV Department of  
Environmental Protection

API 47-051-02333 County Marshall District Franklin  
Quad Powhatan Point 7.5' Pad Name McMasters Field/Pool Name \_\_\_\_\_  
Farm name Robert L. Shields, et al Well Number McMasters N-14HU  
Operator (as registered with the OOG) Tug Hill Operating, LLC  
Address 380 Southpointe Boulevard, Plaza II, Suite 200 City Canonsburg State PA Zip 15317

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,401,145.39 Easting 518,196.97  
Landing Point of Curve Northing 4,401,510.69 Easting 518,569.05  
Bottom Hole Northing 4,404,349.25 Easting 516,946.96

Elevation (ft) 1207.75' GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine

Mud Type(s) and Additive(s)  
SOBM; Base oil, osmotic inhibitor, weighting agent, viscosifier, emulsifier, hardness buffer, fluid loss additive, LCM, Shale inhibitor, de-foamer, soaping agent, coagulant, flocculant; specific additives per WSSP and Permit.

Date permit issued 9/25/2020 Date drilling commenced spud:6/9/2021 big rig: 8/14/2021 Date drilling ceased 2/14/2022  
Date completion activities began 7/7/2022 Date completion activities ceased 7/22/2022  
Verbal plugging (Y/N) N Date permission granted n/a Granted by n/a

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 828' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1332' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 727-733', 822-828' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

APPROVED  
Reviewed by:  
STRAD 10-13-2022  
10/21/2022

API 47- 051 - 02333 Farm name Robert L. Shields, et al Well number McMasters N-14HU

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	36"	30"	120'	NEW	94.5#	N/A	Y
Surface	26"	20"	902'	NEW	106.5#	N/A	Y
Coal							
Intermediate 1	17 1/2"	13 3/8"	2,650'	NEW	54.5#	N/A	Y
Intermediate 2	12 1/4"	9 5/8"	10,219'	NEW	47#	N/A	Y
Intermediate 3							
Production	8 1/2"	5 1/2"	22,500'	NEW	23#	N/A	Y
Tubing		2 7/8"	11,007'	NEW	4.7#	N/A	Y
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	A	426	15.6	1.18	502.68	0	8
Surface	A	1600	15.6	1.193	1908.8	0	8
Coal							
Intermediate 1	A	2115	15.6	1.18	2495.7	0	8
Intermediate 2	A	4095	14.5	1.277	5229.315	0	8
Intermediate 3							
Production	A	5465	16.5	1.03	5628.95	0	8
Tubing							

Drillers TD (ft) 22,560' Loggers TD (ft) n/a  
 Deepest formation penetrated Trenton Plug back to (ft) n/a  
 Plug back procedure n/a

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Kick off depth (ft) 10,507'

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING 3 centralizers on surface casing at equal distance.  
Intermediate - 1 centralizer every other joint.  
 Production - one centralizer every other joint in lateral, one centralizer every joint through curve, one centralizer every other joint to surface.

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_





OCT 11 2022  
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 11/11/2022

**McMasters N-14HU**  
**STIMULATION INFORMATION PER STAGE**

Stage No.	Ave. Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	73.00	11687	12639	7149	126300	7,229	0
2	83.00	11810	12554	7077	504440	9,871	0
3	83.00	12012	12622	7023	499900	8,163	0
4	85.00	11695	12345	7483	506340	8,032	0
5	83.00	11617	12108	7519	501280	8,055	0
6	82.00	11894	12457	7172	491440	7,944	0
7	85.00	11148	11585	7829	508700	8,159	0
8	85.00	11644	12360	7447	505020	8,054	0
9	83.00	11618	12191	7650	501460	8,038	0
10	83.00	11381	12022	8095	508260	8,015	0
11	85.00	11224	11744	8146	507260	8,050	0
12	83.00	11056	11516	8031	505000	7,985	0
13	84.00	11180	11709	8514	490500	7,831	0
14	85.00	11212	11806	8312	501660	7,934	0
15	85.00	11452	12121	8243	509140	8,020	0
16	88.00	11213	11772	7867	504140	8,023	0
17	85.00	11000	11476	8951	509480	7,883	0
18	85.00	11085	11658	9149	498670	7,906	0
19	87.00	11101	11434	8050	509790	8,044	0
20	85.00	11125	11571	8595	417200	7,154	0
21	85.00	10806	11247	8546	509440	7,724	0
22	85.00	11026	11586	7720	496620	7,891	0
23	86.00	10671	11169	7805	500980	7,865	0
24	86.00	10695	11178	7733	496520	7,829	0
25	85.00	10594	11022	8122	495420	7,850	0
26	86.00	10554	10948	8060	494940	7,815	0
27	87.00	10756	11204	8857	416420	7,058	0
28	88.00	10414	10706	8598	493880	7,528	0
29	87.00	10511	10750	7882	495260	7,757	0
30	86.00	10700	11080	8445	496700	7,752	0
31	88.00	10692	11145	9166	512680	7,958	0
32	87.00	10785	11328	7685	501900	7,805	0

Stage No.	Ave. Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
33	88.00	10674	11213	8535	506880	7,868	0
34	87.00	10747	11249	8940	506180	7,869	0
35	86.00	10749	11426	8236	505880	7,883	0
36	86.00	10761	11781	7824	277484	4,753	0
37	88.00	10234	10618	8027	506440	7,817	0
38	87.00	10444	11002	9426	506700	8,077	0
39	88.00	10255	10771	9625	507040	7,927	0
40	88.00	10465	10875	8157	502160	7,767	0
41	88.00	10447	11436	7970	509750	7,902	0
42	87.00	10370	10964	8373	504740	7,934	0
43	86.00	10312	10746	8257	498340	7,764	0
44	85.00	10210	10649	7709	493960	7,643	0
45	85.00	10526	11261	8184	503260	7,656	0
46	87.00	10035	10443	8413	500100	7,731	0
47	87.00	9752	10323	8855	500620	7,754	0
48	85.00	9689	10080	8171	498200	7,671	0
49	86.00	9742	10096	8299	500660	7,642	0
50	87.00	9756	10210	8583	500720	7,709	0
51	88.00	9876	10267	8490	497460	7,665	0
52	87.00	9903	10355	7964	500160	8,849	0
53	85.00	9768	10297	8271	505400	7,581	0
54	85.00	9891	10265	8310	506560	7,610	0

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**MCMASTERS N-14HU  
PERFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	7/7/2022	22,301	22,352	12	Utica
2	7/8/2022	22,074	22,250	48	Utica
3	7/8/2022	21,875	22,051	48	Utica
4	7/9/2022	21,676	21,852	48	Utica
5	7/9/2022	21,477	21,653	48	Utica
6	7/9/2022	21,278	21,454	48	Utica
7	7/9/2022	21,079	21,255	48	Utica
8	7/10/2022	20,880	21,056	48	Utica
9	7/10/2022	20,681	20,857	48	Utica
10	7/10/2022	20,482	20,658	48	Utica
11	7/10/2022	20,283	20,459	48	Utica
12	7/11/2022	20,084	20,260	48	Utica
13	7/11/2022	19,885	20,061	48	Utica
14	7/11/2022	19,686	19,862	48	Utica
15	7/12/2022	19,487	19,663	48	Utica
16	7/12/2022	19,288	19,464	48	Utica
17	7/12/2022	19,089	19,265	48	Utica
18	7/13/2022	18,890	19,066	48	Utica
19	7/13/2022	18,691	18,867	48	Utica
20	7/13/2022	18,492	18,668	48	Utica
21	7/13/2022	18,293	18,469	48	Utica
22	7/14/2022	18,094	18,270	48	Utica
23	7/14/2022	17,895	18,071	48	Utica
24	7/14/2022	17,696	17,872	48	Utica
25	7/15/2022	17,497	17,673	48	Utica
26	7/15/2022	17,298	17,474	48	Utica
27	7/15/2022	17,099	17,275	48	Utica
28	7/15/2022	16,900	17,076	48	Utica
29	7/16/2022	16,701	16,877	48	Utica
30	7/16/2022	16,502	16,678	48	Utica
31	7/16/2022	16,303	16,479	48	Utica
32	7/17/2022	16,104	16,280	48	Utica
33	7/17/2022	15,905	16,081	48	Utica
34	7/17/2022	15,706	15,882	48	Utica
35	7/17/2022	15,507	15,683	48	Utica
36	7/18/2022	15,308	15,484	48	Utica
37	7/18/2022	15,109	15,285	48	Utica
38	7/18/2022	14,910	15,086	48	Utica
39	7/18/2022	14,711	14,887	48	Utica
40	7/19/2022	14,512	14,688	48	Utica
41	7/19/2022	14,313	14,489	48	Utica

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
42	7/19/2022	14,114	14,290	48	Utica
43	7/19/2022	13,915	14,091	48	Utica
44	7/20/2022	13,716	13,892	48	Utica
45	7/20/2022	13,517	13,693	48	Utica
46	7/20/2022	13,318	13,494	48	Utica
47	7/20/2022	13,119	13,295	48	Utica
48	7/21/2022	12,920	13,096	48	Utica
49	7/21/2022	12,721	12,897	48	Utica
50	7/21/2022	12,522	12,698	48	Utica
51	7/21/2022	12,323	12,499	48	Utica
52	7/22/2022	12,124	12,300	48	Utica
53	7/22/2022	11,925	12,101	48	Utica
54	7/22/2022	11,726	11,902	48	Utica



## McMasters N-14HU

### Lithology Information

LITHOLOGY/FORMATION	TOP DEPTH IN FT/ Name TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID
Maxton	1926	2020	1927	2022	Sandstone
Big Lime	2020	2074	2022	2076	Limestone
Big Injun	2074	2370	2076	2374	Sandstone
Weir	2370	2557	2374	2562	Sandstone
Berea	2557	2859	2562	2865	Sandstone
Gordon	2859	2922	2865	2928	Sandstone
Fifty Foot	2922	3496	2928	3510	Sandstone
Speechley	3496	4895	3510	4935	Sandstone
Benson	4895	5276	4935	5323	Sandstone
Alexander	5276	5864	5323	5923	Siltstone
Rhinstreet	5864	6292	5923	6359	Black Shale
Middlesex	6292	6368	6359	6436	Black Shale
Geneseo/Burkett	6368	6394	6436	6462	Black Shale
Tully	6394	6427	6462	6496	Limestone
Hamilton	6427	6477	6496	6547	Gray Shale
Marcellus	6477	6527	6547	6597	Black Shale
Onondaga	6527	6743	6597	6817	Limestone
Oriskany	6743	6842	6817	6918	Sandstone
Helderberg	6842	7214	6918	7297	Limestone
Salina	7214	8233	7297	8336	Salt/Anhydrite/LS
Lockport	8233	8600	8336	8709	Dolomite
Rose Hill	8600	8877	8709	8992	Shale
Packer Shell	8877	9086	8992	9205	Limestone
Clinton/Tuscarora	9086	9175	9205	9296	Sandstone
Juniata/Queenston	9175	9941	9296	10075	Red Shale
Reedsville	9941	10919	10075	11120	Gray Shale
Utica	10919	11177	11120	11568	Black Shale
Point Pleasant	11177	-	11568	-	Shale/Limestone

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 Environmental Engineering

# Hydraulic Fracturing Fluid Product Component Information Disclosure



Job Start Date	7/7/2022
Job End Date	7/22/2022
State	West Virginia
County	Marshall
API Number	47-051-02333-00-00
Operator Name	Tug Hill Operating, LLC
Well Name and Number	McMasters N 14HU
Latitude	39.76004100
Longitude	-80.78756500
Datum	NAD27
Federal Well	NO
Indian Well	NO
True Vertical Depth	11,134
Total Base Water Volume (gal)	17,736,348
Total Base Non Water Volume	0

## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Service Abstract Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Tug Hill Operating	Carrier/Base Fluid	Water	7732-18-5	100.00000	84.53417	None
Sand (40/70 White Proppant)	Tug Hill Operating	Proppant	Silica Substrate	14808-60-7	100.00000	11.88691	None
Sand (100 Mesh Proppant)	Tug Hill Operating	Proppant	Silica Substrate	14808-60-7	100.00000	3.16571	None
Hydrochloric Acid (7.5%)	CNR	Acidizing	Water	7732-18-5	85.00000	0.24012	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.10452	None
StimStream FR 9800	Chemstream	Friction Reducer	Alkanes, C16-20-iso-	90622-59-6	25.00000	0.02117	None
			Butene, homopolymer	9003-29-6	25.00000	0.02117	None
MC MX 9-4743	Multi-Chem	Biocide	Ethoxylated alcohols (C12-18)	58213-23-0	3.00000	0.00254	None
LD-7750W	Multi-Chem	Scale Inhibitor	Sodium Nitrate	7631-99-4	60.00000	0.02154	None

			Methanol	67-56-1	60.00000	0.00495	None
ProHib 100	CNR	Acid Inhibitor	Phosphonic Acid Salt	Proprietary	5.00000	0.00041	None
			2-Butoxyethanol	111-76-2	60.00000	0.00052	None
			Proprietary material	Proprietary	30.00000	0.00026	None
			Proprietary non-ionic surfactant	Proprietary	20.00000	0.00017	None
			Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00009	None
			Proprietary corrosion inhibitor	Proprietary	10.00000	0.00009	None
ProFE 105	CNR	Iron Control	Citric Acid	77-92-9	20.00000	0.00021	None
			Acetic Acid	64-19-7	5.00000	0.00005	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Other Chemical(s)	Listed Above	See Trade Name(s) List					
			Water	7732-18-5	85.00000	0.24012	
			Butene, homopolymer	9003-29-6	25.00000	0.02117	
			Ethoxylated alcohols (C12-18)	68213-23-0	3.00000	0.00254	
			Phosphonic Acid Salt	Proprietary	5.00000	0.00041	
			Proprietary material	Proprietary	30.00000	0.00026	
			Proprietary non-ionic surfactant	Proprietary	20.00000	0.00017	
			Proprietary ethoxylated alcohol	Proprietary	10.00000	0.00009	
			Proprietary corrosion inhibitor	Proprietary	10.00000	0.00009	
			Acetic Acid	64-19-7	5.00000	0.00005	

\* Total Water Volume sources may include fresh water, produced water, and/or recycled water

\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

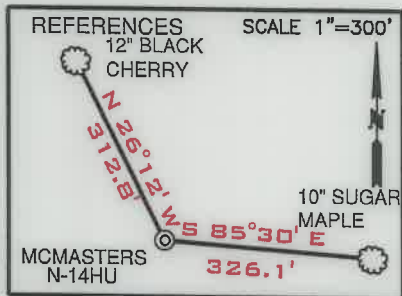
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)



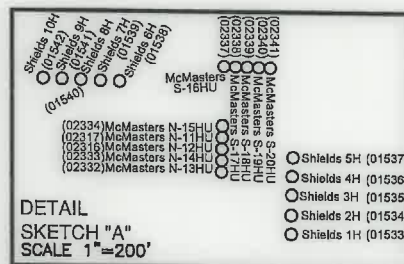
# MCMASTERS LEASE WELL N-14HU 539.1576± ACRES

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

(BH)



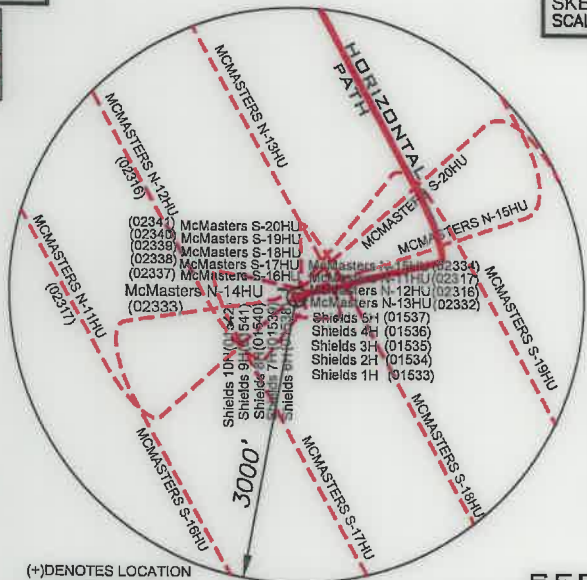
LINE	BEARING	DISTANCE
L1	N 70°05' W	1,432.39'
L2	S 41°42' W	1266.68'
L3	N 75°42' E	1,525.16'



**SURFACE HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,401,145.39  
E) 518,196.97

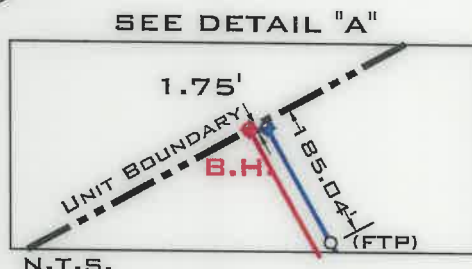
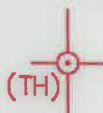
**LANDING POINT 1**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,401,510.69  
E) 518,569.05

**BOTTOM HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,404,349.25  
E) 516,946.96



**LEGEND**

- LEASED 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
- ASDRILLED LEG
- PERMITTED LEG



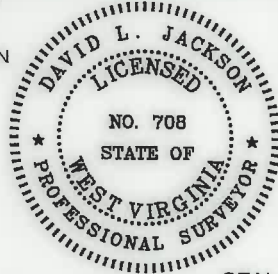
- NOTES**
- BORE PATH BASED ON GRID NORTH.
  - NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
  - OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2019. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
  - WELL 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	N 55°47' E	45.67'	69.52'	46.54'
C2	N 08°44' E	52.88'	76.97'	53.98'
C3	N 12°41' W	114.49'	734.26'	114.61'
C4	N 22°50' W	663.76'	2869.73'	665.25'

FILE NUMBER \_\_\_\_\_  
DRAWING NUMBER: MCMASTERS N-14HU\_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: OCTOBER 05, 2022  
OPERATORS WELL NO. MCMASTERS N-14HU  
API WELL NO. 47-051-02333  
STATE COUNTY PERMIT  
LOCATION ELEVATION 1207.75' 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  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION   
PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE (SPECIFY) ASDRILLED  
TARGET FORMATION POINT PLEASANT ESTIMATED DEPTH TVD: 11,022' TMD: 22,560'  
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DARREN BROWN, CT CORP  
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500 FORT WORTH, TX 76107 ADDRESS 5098 WASHINGTON STREET WEST, SUITE 407 CHARLESTON, WV 25313-1561

COUNTY NAME PERMIT

10/21/2022



# MCMASTERS LEASE WELL N-14HU 539.1576± ACRES

**SURFACE HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,401,145.38  
E) 518,197.03

**LANDING POINT 1**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,401,510.41  
E) 518,574.18

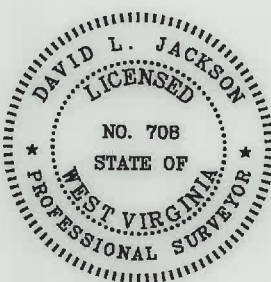
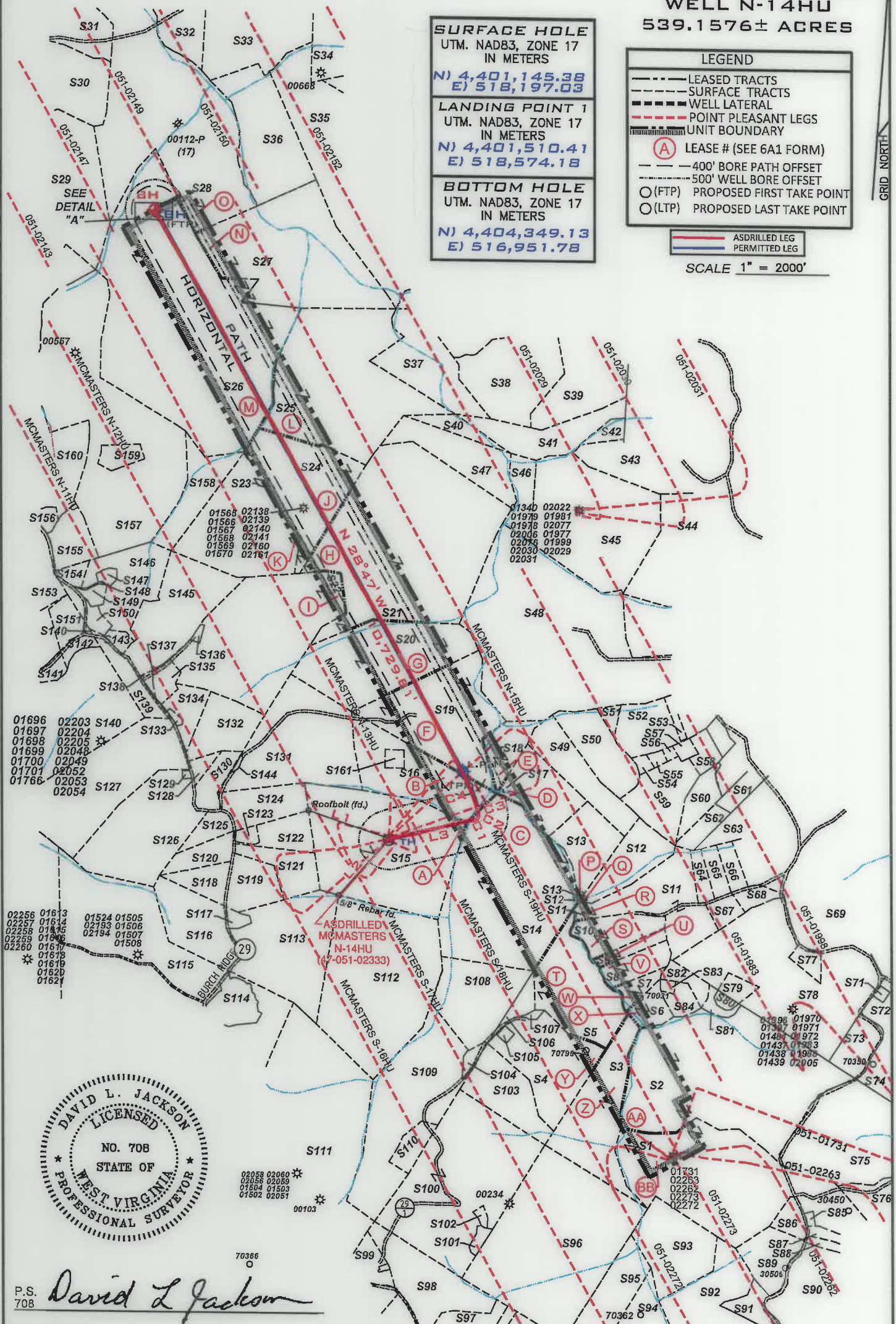
**BOTTOM HOLE**  
UTM. NAD83, ZONE 17  
IN METERS  
N) 4,404,349.13  
E) 516,951.78

**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

ASDRILLED LEG  
PERMITTED LEG

SCALE 1" = 2000'



P.S. 708 *David L Jackson*

10/21/2022



## TUG HILL OPERATING

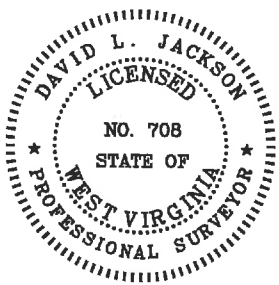
OPERATOR'S  
WELL #: MCMASTERS N-14HU  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV  
API #: 47-051-02333

WELL PLAT  
PAGE 2 OF 4  
DATE: 10/05/2022



**MCMASTERS LEASE  
WELL N-14HU  
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	65.677	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 McCardle	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 & Anglea 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. Lissan	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. Gilberson-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 Accetolo 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*

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**TUG HILL  
OPERATING**

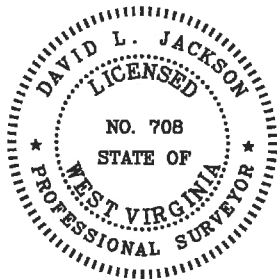
OPERATOR'S  
WELL #: MCMASTERS N-14HU  
DISTRICT: Franklin  
COUNTY: Marshall  
STATE: WV  
API #: 47-051-02333

**WELL PLAT**  
**PAGE 3 OF 4**  
**DATE: 10/05/2022**

**MCMASTERS LEASE  
WELL N-14HU  
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	Casandra 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	669	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*25631	I	5-19-13	CHESTNUT HOLDINGS LLC	1034	550
10*14116	J	5-15-15	DONALD SHIELDS	669	367
10*14117	J	5-15-15	ROBERT L SHIELDS AND REBECCA A SHIELDS	669	360
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 L AND MARY LEE PERSINGER	976	626
10*16918	O	5-12-12.1	LIONEL L AND 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 E 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 MIDCAP	697	152
10*14140	BB	5-23-7	TERRY E SIMMS AND DEBORAH L SIMMS	666	529



P.S. 708 *David L Jackson*

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	OPERATOR'S	WELL PLAT PAGE 4 OF 4 DATE: 10/05/2022
	WELL #: <u>MCMASTERS N-14HU</u>	
	DISTRICT: <u>Franklin</u>	
	COUNTY: <u>Marshall</u>	
	STATE: <u>WV</u>	
	API #: <u>47-051-02333</u>	