

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

API 47 - 051 - 02034 County Marshall District Franklin
Quad New Martinsville 7.5' Pad Name Lily Field/Pool Name _____
Farm name Ula F. Nelson Well Number Weller 1HM
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 4,398,625.15 Easting 516,594.58
Landing Point of Curve Northing 4,398,425.06 Easting 517,192.92
Bottom Hole Northing 4,396,503.95 Easting 518,293.80

Elevation (ft) 1272.6' 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 6/12/2018 Date drilling commenced 3/27/2019 Date drilling ceased 4/6/2019
Date completion activities began 4/28/2019 Date completion activities ceased 9/10/2019
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A RECEIVED
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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug JUN 10 2020

Freshwater depth(s) ft 70' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1595' Void(s) encountered (Y/N) depths N
Coal depth(s) ft N Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: Jane Nicholas
6/22/2020

API 47-051 - 02034

Farm name Ula F. Nelson

Well number Weller 1HM

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	17 1/2"	13 3/8"	1,013'	NEW	54.5#	N/A	Y
Coal	17 1/2"	13 3/8"	1,013'	NEW	54.5#	N/A	Y
Intermediate 1	12 1/4"	9 5/8"	2,685'	NEW	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	14,460'	NEW	20#	N/A	Y
Tubing		2 3/8"	7,230'	NEW	4.7#	N/A	
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	A		15.6	1.19		0	8
Surface	A	1051	15.6	1.19	1270	0	8
Coal	A	1051	15.6	1.19	1270	0	8
Intermediate 1	A	778	15.6	1.19	874	0	8
Intermediate 2							
Intermediate 3							
Production	A	3444	14.5	1.17	4013	0	8
Tubing							

Drillers TD (ft) 14,480' Loggers TD (ft) n/a

Deepest formation penetrated Marcellus Plug back to (ft) n/a

Plug back procedure n/a

Kick off depth (ft) 6,330'

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.

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WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WV Department of Environmental Protection

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____

**Weller 1HM
PEFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	7/10/2019	14075	14227	48	Marcellus
2	7/10/2019	13902	14054	48	Marcellus
3	7/11/2019	13728	13880	48	Marcellus
4	7/11/2019	13554	13706	48	Marcellus
5	7/11/2019	13381	13533	48	Marcellus
6	7/12/2019	13207	13359	48	Marcellus
7	7/12/2019	13034	13186	48	Marcellus
8	7/12/2019	12860	13012	48	Marcellus
9	7/12/2019	12687	12839	48	Marcellus
10	7/13/2019	12513	12665	48	Marcellus
11	7/13/2019	12340	12492	48	Marcellus
12	7/13/2019	12166	12318	48	Marcellus
13	7/14/2019	11993	12145	48	Marcellus
14	7/14/2019	11819	11971	48	Marcellus
15	7/14/2019	11646	11798	48	Marcellus
16	7/15/2019	11472	11624	48	Marcellus
17	7/15/2019	11299	11451	48	Marcellus
18	7/15/2019	11125	11277	48	Marcellus
19	7/16/2019	10952	11104	48	Marcellus
20	7/16/2019	10778	10930	48	Marcellus
21	7/16/2019	10605	10757	48	Marcellus
22	7/17/2019	10431	10583	48	Marcellus
23	7/17/2019	10258	10410	48	Marcellus
24	7/17/2019	10084	10236	48	Marcellus
25	7/18/2019	9911	10063	48	Marcellus
26	7/18/2019	9737	9889	48	Marcellus
27	7/18/2019	9564	9716	48	Marcellus
28	7/19/2019	9390	9542	48	Marcellus
29	7/19/2019	9217	9369	48	Marcellus
30	7/19/2019	9043	9195	48	Marcellus
31	7/19/2019	8870	9022	48	Marcellus
32	7/20/2019	8696	8848	48	Marcellus
33	7/20/2019	8523	8675	48	Marcellus
34	7/20/2019	8349	8501	48	Marcellus
35	7/21/2019	8176	8328	48	Marcellus
36	7/21/2019	8002	8154	48	Marcellus
37	7/21/2019	7829	7981	48	Marcellus
38	7/21/2019	7655	7807	48	Marcellus
39	7/22/2019	7482	7634	48	Marcellus
40	7/22/2019	7308	7460	48	Marcellus
41	7/22/2019	7135	7287	48	Marcellus

RECORDED
Office of Oil and Gas
JUN 10 2020
WV Department of
Environmental Protection

Weller 1HM

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	87.5	7238	5166	3878	440830	9671	0
2	87.6	7139	5606	4054	442360	8723	0
3	87.3	7121	5618	4157	440400	8504	0
4	87.9	7245	5341	4397	442920	8380	0
5	88.6	7305	5382	4397	440880	8599	0
6	89.6	7426	5339	4756	439480	8298	0
7	87.2	7214	5384	4533	441780	9180	0
8	86.7	7171	5375	4778	440390	8615	0
9	88.5	7424	5308	4446	439250	8826	0
10	88.3	7513	5392	4338	439940	8535	0
11	86.4	7203	5486	4365	442000	8362	0
12	88.3	7505	5865	4084	372190	8589	0
13	88.4	7188	5631	4766	437620	8474	0
14	87	7020	5508	5010	433890	9183	0
15	89.2	7073	5635	4592	438720	9244	0
16	89	7129	5491	4401	439860	9437	0
17	88.3	7134	5836	4630	433890	8026	0
18	84.5	7247	5515	4812	442610	8415	0
19	88.8	7218	5342	4536	281460	6663	0
20	86.7	6910	5384	4670	437680	9694	0
21	89.3	7067	5377	3470	435200	9476	0
22	88.9	6901	5130	4825	444230	9827	0
23	88.5	6764	4701	4615	439150	9357	0
24	89.3	6689	5021	4359	438610	9872	0
25	89.3	6551	5515	4715	439270	9811	0
26	89.3	6547	6230	4475	436640	9488	0
27	89.6	6551	5612	4711	437920	9457	0
28	89.2	6746	5516	3822	438880	9914	0
29	89.5	6543	5382	4488	439790	9724	0
30	89.1	6932	5187	3552	440040	9993	0
31	89.1	6632	5391	4831	438790	10176	0
32	89.6	6562	5071	4804	442340	10268	0
33	89.3	6464	4931	4587	442830	9751	0

34	89.5	6357	4921	4099	439360	9943	0
35	89.4	6356	5329	4960	438357	9944	0
36	88.8	6399	5342	4521	439830	9577	0
37	89.2	6323	5838	4394	438440	8266	0
38	89.3	6294	5156	4315	435930	8678	0
39	87.1	6623	4839	4610	409335	8105	0
40	89.5	6282	5220	4655	437520	8330	0
41	89.4	6218	5200	3869	439600	8431	0

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WELLER 1HM

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	1958	2053	1959	2054	Sandstone
Big Lime	2053	2108	2054	2109	Limestone
Big Injun	2108	2410	2109	2412	Sandstone
Weir	2410	2593	2412	2597	Sandstone
Berea	2593	2903	2597	2918	Sandstone
Gordon	2903	2963	2918	2983	Sandstone
Fifty Foot	2963	3541	2983	3612	Sandstone
Speechley	3541	4932	3612	5134	Sandstone
Benson	4932	5308	5134	5542	Sandstone
Alexander	5308	5898	5542	6187	Siltstone
Rhinestreet	5898	6316	6187	6685	Black shale
Middlesex	6316	6399	6685	6812	Black shale
Geneseo/Burkett	6399	6425	6812	6858	Black shale
Tully	6425	6456	6858	6918	Limestone
Hamilton	6456	6493	6918	7009	Grey shale
Marcellus	6493	-	7009	-	Black shale

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TUG HILL
OPERATING

Well: Weller 1 HM (E)
Site: Lily/Weller
Project: Marshall County, West Virginia.
Design: rev2

ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Annotation
154.00	0.93	228.15	153.99	-0.83	-0.93	0.07	MWD surveys
14424.00	89.14	148.84	6569.60	-6912.25	5546.39	8862.38	Survey @ 14424.00 MD 6569.60 TVD
14479.00	89.14	148.84	6570.42	-6959.31	5574.85	8916.89	Survey projected to 14479.00 MD 6570.42 TVD

Geoidic System: Universal Transverse Mercator (US Survey Feet)
 Datum: NAD83 West Virginia - HARR
 Ellipsoid: GRS 1980
 Zone: Zone 17N (84 W to 78 W)

System Datum: Mean Sea Level
 Depth Reference: RKB=1273+26 @ 1299.00usft (Neighbors B 28)

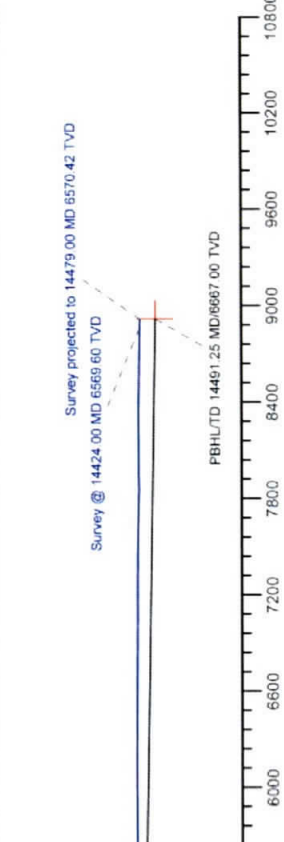
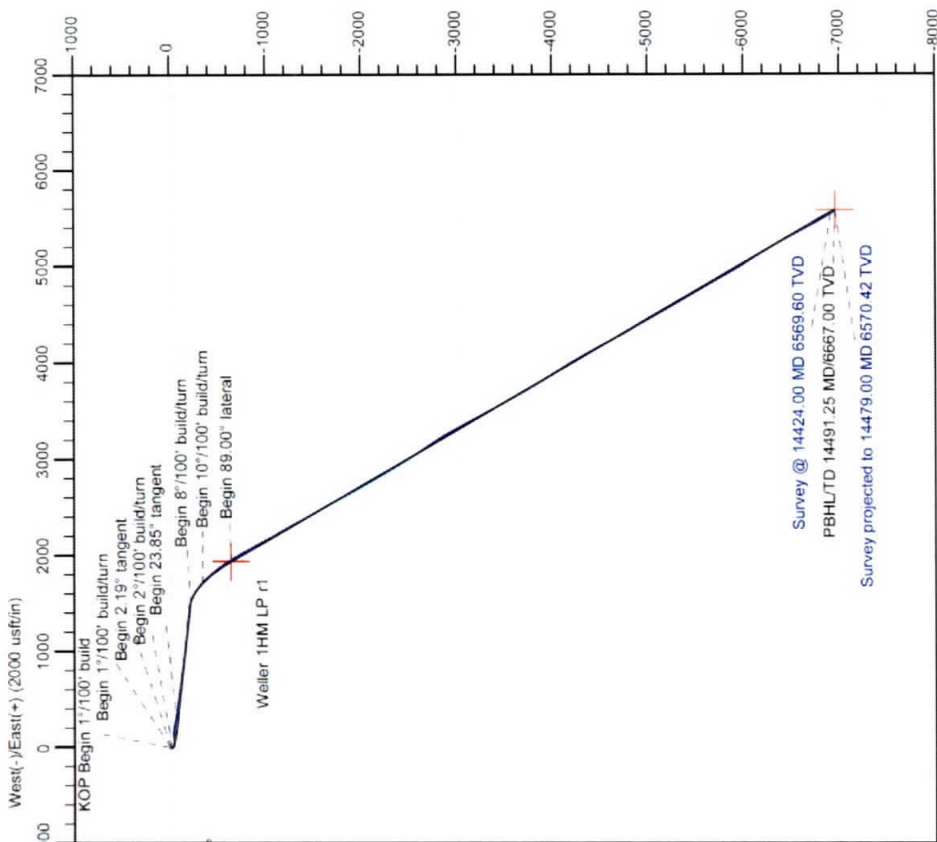
Northing 14431155.90 Easting 39.73735799 Longitude -80.80633179
 Total Corr. (M->G): To convert a Magnetic Direction to a Grid Direction. Subtract 8.79°



Azimuths to Grid North
 True North: -0.12°
 Magnetic North: -8.79°
 Magnetic Field
 Strength: 51954.4nT
 Dip Angle: 98.78°
 Date: 3/27/2019
 Model: IGRF2015

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 1'100' build
2	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	Begin 1'100' build/turn
3	1500.00	2.00	229.00	1499.96	-2.29	-2.63	1.00	229.0000	0.14	Begin 2'19" tangent
4	1632.01	2.19	192.62	1631.89	-6.26	-4.92	1.00	100-100.316	1.80	Begin 2'19" tangent
5	2009.39	2.19	192.62	2000.00	-20.00	-8.00	0.00	0.00	10.59	Begin 2'19" tangent
6	3209.42	23.85	96.41	3174.45	-70.61	233.46	2.00	-101.069	201.20	Begin 23.85° tangent
7	6365.18	23.85	96.41	6060.69	-213.17	1501.55	0.00	0.00	1106.16	Begin 8'100' build/turn
8	6783.25	50.00	133.68	6395.81	-336.73	1707.23	8.00	57.311	1331.27	Begin 10'100' build/turn
9	7200.57	89.00	150.00	6540.00	-641.39	1937.41	10.00	24.967	1712.95	Begin 89.00° lateral
10	14491.25	89.00	150.00	6667.00	-6954.40	5582.12	0.00	0.000	8917.61	PBHL/TD 14491.25 MD/6667.00 TVD



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Weller 1HM LP r1

Vertical Section at 141.25° (1200 usft/m)

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	7/10/2019
Job End Date:	7/22/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-02034-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Weller 1HM
Latitude:	39.73730000
Longitude:	-80.80630000
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,565
Total Base Water Volume (gal):	15,912,596
Total Base Non Water Volume:	0

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Fresh Water	Halliburton	Base Fluid	Water	7732-18-5	100.00000	87.91907	Density = 8.34
Ingredients	Listed Above	Listed Above	Water	7732-18-5	100.00000	0.20935	



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Sand-Premium White-30/50	Halliburton	Proppant		Listed Below				
LD-2950	MultiChem	Friction Reducer		Listed Below				
MC MX 8-4743	MultiChem	Additive		Listed Below				
OilPerm A	Halliburton	Non-ionic Surfactant		Listed Below				
LEGEND(TM) LD-7750W	MultiChem	Scale Control		Listed Below				
FDP-S1296-17	Halliburton	Acid Corrosion Inhibitor		Listed Below				
Sand-Common White-100 Mesh	Halliburton	Proppant		Listed Below				
HYDROCHLORI C ACID, 22 BAUME	Halliburton	Solvent		Listed Below				
Sand-Premium White-40/70	Halliburton	Proppant		Listed Below				

REGULATORY
Office of Oil and Gas
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		1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00000
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* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

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

*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

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)

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**WELLER LEASE
WELL 1HM
540.104± ACRES**

WELLER 1HM

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

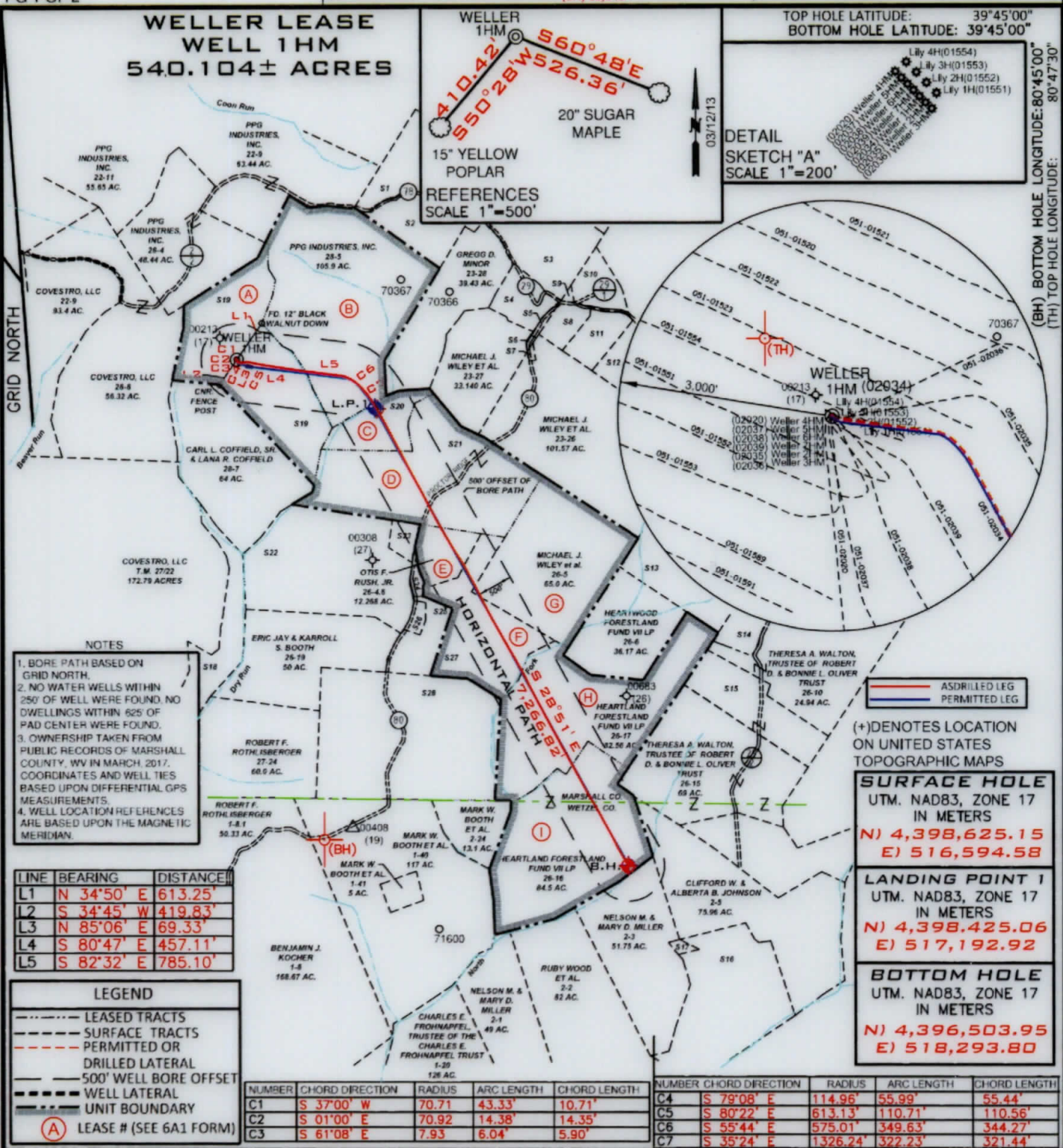


REFERENCES
SCALE 1"=500'

DETAIL
SKETCH "A"
SCALE 1"=200'



GRID NORTH



- 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.

LINE	BEARING	DISTANCE
L1	N 34°50' E	613.25'
L2	S 34°45' W	419.83'
L3	N 85°06' E	69.33'
L4	S 80°47' E	457.11'
L5	S 82°32' E	785.10'

LEGEND

- LEASE TRACTS
- SURFACE TRACTS
- - - PERMITTED OR DRILLED LATERAL
- 500' WELL BORE OFFSET
- WELL LATERAL
- UNIT BOUNDARY
- (A) LEASE # (SEE 6A1 FORM)

NUMBER	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH
C1	S 37°00' W	70.71	43.33'	10.71'
C2	S 01°00' E	70.92	14.38'	14.35'
C3	S 61°08' E	7.93	6.04'	5.90'

NUMBER	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH
C4	S 79°08' E	114.96'	55.99'	55.44'
C5	S 80°22' E	613.13'	110.71'	110.56'
C6	S 55°44' E	575.01'	349.63'	344.27'
C7	S 35°24' E	1326.24'	322.23'	321.44'

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,625.15
E) 516,594.58

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,425.06
E) 517,192.92

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,396,503.95
E) 518,293.80

FILE NUMBER _____

DRAWING NUMBER WELLER_WP_1HM

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

P.S. 708

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: APRIL 08, 2020

OPERATORS WELL NO. WELLER 1HM

API WELL NO. 47-051-02034

STATE WV COUNTY MARSHALL PERMIT AS-DRILLED

LOCATION ELEVATION 1272.6' WATERSHED (HUC 10) French Creek - Ohio River

DISTRICT Franklin COUNTY Marshall

QUADRANGLE New Martinsville 7 1/2' LEASE NUMBER SEE WW-6A1 Form

SURFACE OWNER Ula F. Nelson ACREAGE 70.0

OIL & GAS ROYALTY OWNER Ula F. Nelson LEASE ACREAGE 70.0

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY) AS-DRILLED

TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD: 6,570.42' TMD: 14,479'

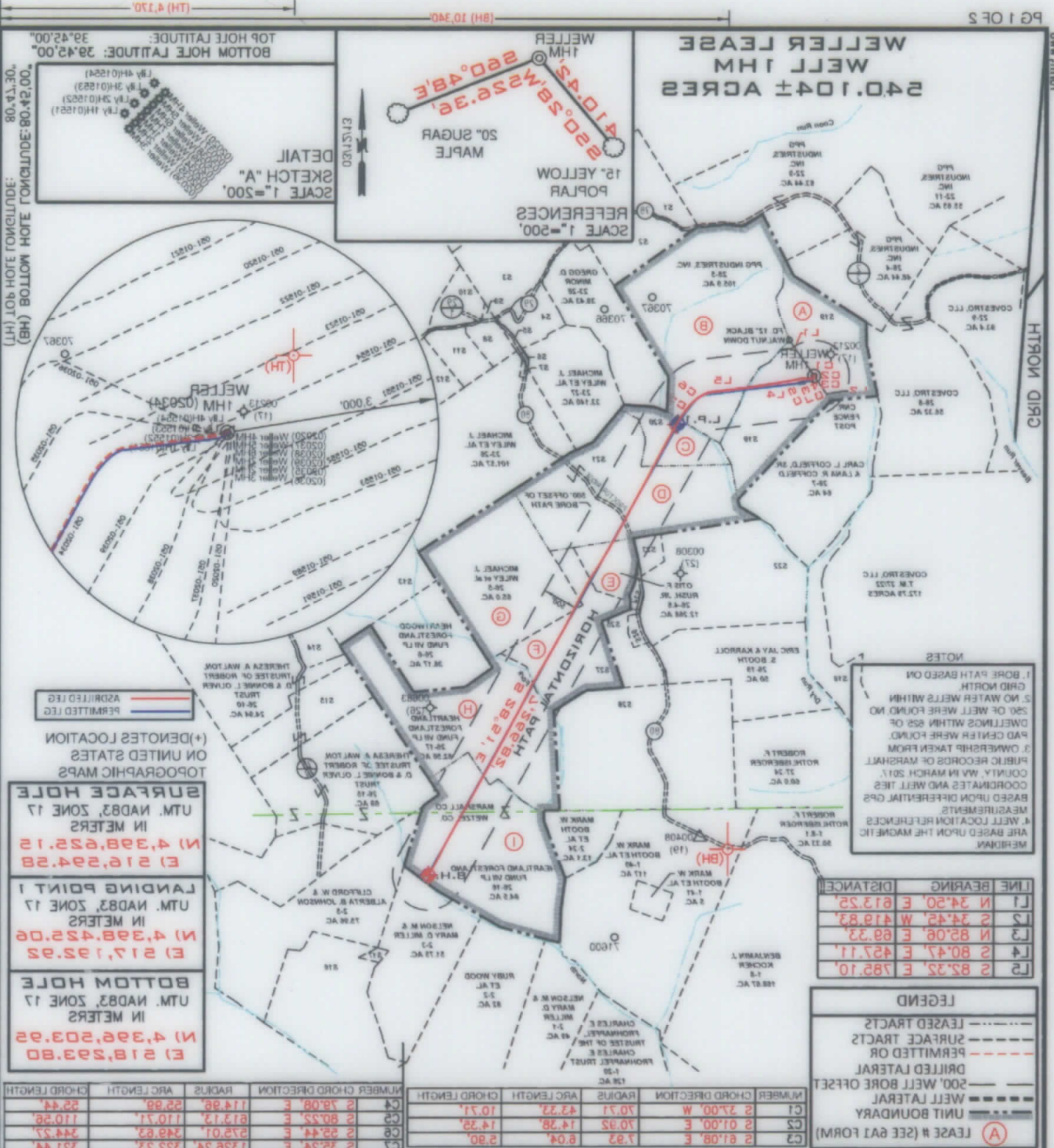
WELL OPERATOR TUG HILL OPERATING, LLC DESIGNATED AGENT DIANNA STAMPER

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

(BH) 10,340'
(TH) 4,170'

(BH) 11,559'

COUNTY NAME
PERMIT



I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAN 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 S. Jackson
 P.S. 708
 JACKSON SURVEYING INC.
 P.O. Box 1400
 Clarksville, WV 25805
 304-623-2881

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

GRADE GPS
 SUBMETER MAPPING
 PROVEN SOURCE

OF ACCURACY 1/200
 MINIMUM DEGREE
 SCALE 1" = 2000'
 DRAWING NUMBER WELLER_WP_1HM
 FILE NUMBER

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

LOCATION ELEVATION 1272.6' WATERSHED (HUC 10) French Creek - Ohio River

DISTRICT Franklin COUNTY

QUADRANGLE New Martinsville 7 1/2' LEASE NUMBER SEE WW-6A1 Form

SURFACE OWNER Ula F. Nelson ACREAGE 70.0
 OIL & GAS ROYALTY OWNER Ula F. Nelson LEASE ACREAGE 70.0

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

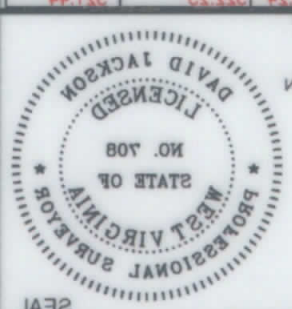
TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH TVD: 6270.42', TMD: 14,478'

WELL OPERATOR TUG HILL OPERATING, LLC
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 200
 FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
 CT CORPORATION SYSTEM
 ADDRESS 5400 D BIG TYLER ROAD
 CHARLESTON, WV 25313

DATE: APRIL 08, 2020
 OPERATORS WELL NO. WELLER 1HM
 API WELL NO. 47-051-02034
 PERMIT COUNTY STATE

COMMUNITY NAME SURFACE OWNER Ula F. Nelson ACREAGE 70.0
 LEASE ACREAGE 70.0
 SEE WW-6A1 Form



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

GRADE GPS
 SUBMETER MAPPING
 PROVEN SOURCE

OF ACCURACY 1/200
 MINIMUM DEGREE
 SCALE 1" = 2000'
 DRAWING NUMBER WELLER_WP_1HM
 FILE NUMBER

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

LOCATION ELEVATION 1272.6' WATERSHED (HUC 10) French Creek - Ohio River

DISTRICT Franklin COUNTY

QUADRANGLE New Martinsville 7 1/2' LEASE NUMBER SEE WW-6A1 Form

SURFACE OWNER Ula F. Nelson ACREAGE 70.0
 OIL & GAS ROYALTY OWNER Ula F. Nelson LEASE ACREAGE 70.0

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

TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH TVD: 6270.42', TMD: 14,478'

WELL OPERATOR TUG HILL OPERATING, LLC
 ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 200
 FORT WORTH, TX 76107

DESIGNATED AGENT DIANNA STAMPER
 CT CORPORATION SYSTEM
 ADDRESS 5400 D BIG TYLER ROAD
 CHARLESTON, WV 25313

DATE: APRIL 08, 2020
 OPERATORS WELL NO. WELLER 1HM
 API WELL NO. 47-051-02034
 PERMIT COUNTY STATE

COMMUNITY NAME SURFACE OWNER Ula F. Nelson ACREAGE 70.0
 LEASE ACREAGE 70.0
 SEE WW-6A1 Form



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

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 LEASE ACREAGE 70.0
 SEE WW-6A1 Form

**WELLER LEASE
WELL N-1HM
540.104± ACRES**

Number	TAX MAP -PARCEL	ADJOINER OWNER	ACRES
S1	22-7.1	XCL MIDASTREAM OPERATING, LLC & ATINUM MARCELLUS I. LLC	21.68
S2	22-7	PATRICIA ACCETTOLO ET AL.	25.02
S3	23-1	PATRICIA ACCETTOLO ET AL.	146.66
S4	23-28.2	MARK W. TENNANT ET AL.	10.80
S5	23-23	MICHAEL J. WILEY ET AL	1.00
S6	23-24	MICHAEL J. WILEY ET AL	0.25
S7	23-25	ARTHUR A. WILEY	0.43
S8	23-22	DANIEL D. RHYAND & LAUREL R. GREENE	6.25
S9	23-29	MICHEAL JAMES WILEY & MICHELLE E. BAKER	0.25
S10	23-18.1	MARK A. YOHO	7.80
S11	23-17.1	CURTIS E. HALL ET UX	10.051
S12	23-17.2	DICK JR. & CAROL J. ROWAN	14.920
S13	26-7	DOMINION TRANSMISSION, INC.	71.00
S14	26-23	RICHARD JOSEPH OTTE	11.34
S15	26-14	THERESA A. WALTON, TRUSTEE OF ROBERT D. & BONNIE L. OLIVER TRUST	27.56
S16	2-4	EDITH SALEM & LISA G. LARSON	56.25
S17	2-4.1	TYRONE SULTZBACH & RICHARD WOLF	1.00
S18	27-23	ROBERT F. ROTHLSBERGER	35.77
S19	28-6	ULA F. NELSON AND LINDA D. DUNLAP, TRUSTEES OF THE ULA F. NELSON & LINDA D. DUNLAP LIVING TRUST DATED JULY 9, 2019	70.00
S20	26-1	EDWIN BOOTH ANDERSON & MARK W. ANDERSON	12.94
S21	26-2	EDWIN BOOTH ANDERSON & MARK W. ANDERSON	67.50
S22	26-4.5	ERIC JAY BOOTH	74.388
S23	26-4	JAMES R. & MELODY A. ANDERSON	3.887
S24	26-4.2	OTIS S. & GLENDA RUSH	1.58
S25	26-4.1	OTIS S. RUSH ET UX.	12.188
S26	26-4.3	CRYSTAL & RANDOPH F. MATASK	2.253
S27	26-4.4	OTIS F. & GLENDA M. RUSH	39.436
S28	26-18	ERIC JAY BOOTH	94.00

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,627.68
E) 516,592.02

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,310.60
E) 516,989.87

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,397,063.62
E) 517,709.71



P.S. 708 *David L Jackson*



**TUG HILL
OPERATING**

OPERATOR'S
WELL #: 1HM - 47-051-02034
DISTRICT: Franklin
COUNTY: Marshall
STATE: WV

WELL PLAT
PAGE 2 OF 2
DATE: 04/08/2020