

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

API 47 - 051 - 02038 County Marshall District Franklin
Quad New Martinsville 7.5' Pad Name Lily Field/Pool Name _____
Farm name Ula F. Nelson Well Number Weller 6HM
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 4,398,630.324 Easting 516,589.28
Landing Point of Curve Northing 4,398,111.91 Easting 516,839.84
Bottom Hole Northing 4,396,280.52 Easting 517,899.20

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 6/14/2018 Date drilling commenced 3/2/2019 Date drilling ceased 3/14/2019
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

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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 804-810', 892-896' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
Jain Theobald
6/22/2020

API 47-051 - 02038 Farm name Ula F. Nelson Well number Weller 6HM

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"	994'	NEW	54.5#	N/A	Y
Coal	17 1/2"	13 3/8"	994'	NEW	54.5#	N/A	Y
Intermediate 1	12 1/4"	9 5/8"	2,725'	NEW	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	14,073'	NEW	20#	N/A	Y
Tubing		2 3/8"	7,037'	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	1053	15.6	1.19	1272	0	8
Coal	A	1053	15.6	1.19	1272	0	8
Intermediate 1	A	808	15.6	1.19	1092	0	8
Intermediate 2							
Intermediate 3							
Production	A	3301	14.5	1.17	3846	0	8
Tubing							

Drillers TD (ft) 14,104' Loggers TD (ft) n/a
 Deepest formation penetrated Marcellus Plug back to (ft) n/a
 Plug back procedure n/a

Kick off depth (ft) 6,222'

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 _____
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WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

**Weller 6HM
PEFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	6/23/2019	13739	13884	48	Marcellus
2	6/24/2019	13565	13710	48	Marcellus
3	6/24/2019	13392	13537	48	Marcellus
4	6/25/2019	13218	13363	48	Marcellus
5	6/25/2019	13044	13189	48	Marcellus
6	6/26/2019	12870	13015	48	Marcellus
7	6/26/2019	12697	12842	48	Marcellus
8	6/26/2019	12523	12668	48	Marcellus
9	6/27/2019	12350	12495	48	Marcellus
10	6/27/2019	12176	12321	48	Marcellus
11	6/27/2019	12002	12147	48	Marcellus
12	6/28/2019	11829	11974	48	Marcellus
13	6/28/2019	11655	11800	48	Marcellus
14	6/29/2019	11482	11627	48	Marcellus
15	6/29/2019	11308	11453	48	Marcellus
16	6/29/2019	11134	11279	48	Marcellus
17	6/30/2019	10961	11106	48	Marcellus
18	6/30/2019	10787	10932	48	Marcellus
19	7/1/2019	10614	10759	48	Marcellus
20	7/1/2019	10440	10585	48	Marcellus
21	7/2/2019	10266	10411	48	Marcellus
22	7/2/2019	10093	10238	48	Marcellus
23	7/2/2019	9919	10064	48	Marcellus
24	7/3/2019	9746	9891	48	Marcellus
25	7/3/2019	9572	9717	48	Marcellus
26	7/4/2019	9398	9543	48	Marcellus
27	7/5/2019	9225	9370	48	Marcellus
28	7/5/2019	9051	9196	48	Marcellus
29	7/6/2019	8878	9023	48	Marcellus
30	7/6/2019	8704	8849	48	Marcellus
31	7/7/2019	8530	8675	48	Marcellus
32	7/7/2019	8357	8502	48	Marcellus
33	7/7/2019	8183	8328	48	Marcellus
34	7/7/2019	8010	8155	48	Marcellus
35	7/7/2019	7836	7981	48	Marcellus
36	7/8/2019	7662	7807	48	Marcellus
37	7/8/2019	7489	7634	48	Marcellus
38	7/8/2019	7315	7460	48	Marcellus
39	7/8/2019	7142	7287	48	Marcellus
40	7/9/2019	6968	7113	48	Marcellus

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Weller 6HM

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	86.3	7286	5541	3981	441470	344928	0
2	89.5	7448	5399	4361	440390	348051	0
3	86.2	7261	5302	5195	442740	365763	0
4	88.5	7288	5061	4145	442520	378166	0
5	88.5	7587	5165	4104	440850	353340	0
6	87.4	7488	5370	4856	356090	298308	0
7	87.1	7110	5149	4390	442040	353798	0
8	85.3	7112	5263	4289	442480	360795	0
9	85.7	7014	5245	4227	441850	376776	0
10	87.5	7011	5043	4816	445650	378194	0
11	89.4	7148	5188	4818	440130	344725	0
12	88.2	7097	5362	4181	440730	348458	0
13	86.8	6740	5071	4319	441010	378854	0
14	71.7	7277	5121	5003	443060	383638	0
15	88.5	6900	5377	4874	441700	388535	0
16	88.9	6988	5495	4057	440270	335707	0
17	86.4	7000	5799	4153	443580	401106	0
18	89	7078	5318	4623	419580	356287	0
19	89.3	6712	5760	4302	439900	404992	0
20	88.3	6580	5645	3813	439810	390946	0
21	89.4	6863	6249	4099	441310	394999	0
22	86.9	6540	5034	4665	443330	416760	0
23	89.3	6365	5566	4752	445150	420267	0
24	87.6	6812	5755	4421	440290	409073	0
25	85.6	6657	5813	4294	440030	407109	0
26	87.1	6382	5410	4753	437480	415042	0
27	89.2	6612	5372	3598	441000	398959	0
28	89.5	6538	5437	4168	438870	404109	0
29	87.3	6354	5268	3487	438220	430987	0
30	87	6594	5437	3645	401310	407452	0
31	88.2	6357	5478	3343	442590	396341	0
32	89	6532	5356	3690	435770	401132	0
33	89.2	6342	5176	4189	439250	385263	0

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34	88.8	6151	5505	3254	438910	351254	0
35	88.5	6191	5343	4309	440390	367326	0
36	89.3	6566	5606	3577	442560	369838	0
37	87.5	6118	4573	3861	441580	403477	0
38	87.5	6093	5284	4251	441370	405263	0
39	89.7	6139	5301	3756	439530	387074	0
40	89.4	6146	5029	4009	439390	388790	0

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WELLER 6HM

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	1958	2054	Sandstone
Big Lime	2053	2108	2054	2110	Limestone
Big Injun	2108	2410	2110	2417	Sandstone
Weir	2410	2593	2417	2603	Sandstone
Berea	2593	2903	2603	2922	Sandstone
Gordon	2903	2963	2922	2986	Sandstone
Fifty Foot	2963	3541	2986	3599	Sandstone
Speechley	3541	4932	3599	5058	Sandstone
Benson	4932	5308	5058	5454	Sandstone
Alexander	5308	5898	5454	6072	Siltstone
Rhinestreet	5898	6316	6072	6553	Black shale
Middlesex	6316	6392	6553	6672	Black shale
Geneseo/Burkett	6392	6421	6672	6723	Black shale
Tully	6421	6451	6723	6781	Limestone
Hamilton	6451	6488	6781	6873	Grey shale
Marcellus	6488	-	6873	-	Black shale

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Well: Weller 6 HM (C)
Site: Lily/Weller
Project: Marshall County, West Virginia.
Design: rev1
Rig: Nabors B28

SECTION DETAILS

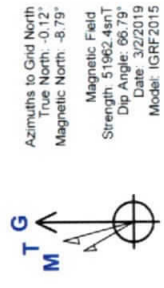
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1726.00	0.00	0.00	1726.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 2'100' build
3	2226.00	10.00	195.00	2223.47	-42.04	0.00	0.00	195.00	31.25	Begin 2'100' build/turn
4	2959.66	18.00	140.00	2937.51	-191.22	45.42	2.00	-87.87	189.16	Begin 18.00' tangent
5	5296.01	16.52	140.00	5150.00	-741.92	507.51	2.00	0.00	895.11	Begin 2'100' build/turn
6	5642.97	16.52	163.71	5491.29	-833.01	557.26	2.00	113.02	998.90	Begin 16.52' tangent
7	6222.17	30.00	163.71	6047.09	-991.29	603.51	0.00	0.00	1159.67	Begin 8'100' build/turn
8	6641.17	30.00	163.13	6392.04	-1207.98	688.57	8.00	0.00	1380.66	Begin 10'100' build
9	7031.17	89.00	150.00	6526.00	-1550.86	772.55	10.00	0.00	1730.80	Begin 5'100' turn
10	7293.70	89.00	150.00	6530.81	-1791.17	876.71	5.00	-90.12	1991.42	Begin 89.00' lateral
11	14130.65	89.00	150.00	6650.18	-7711.34	4294.48	0.00	0.00	8926.51	PBHLTD 14130.65 MD/6650.18 TVD

ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/S	+E/W	Vsect	Annotation
187.00	0.25	330.80	187.00	0.36	-0.20	-0.41	MWD surveys
14050.00	88.26	149.76	6562.85	-7662.70	4270.44	8772.32	Survey @ 14050.00 MD 6562.85 TVD
14104.00	88.26	149.76	6564.49	-7709.33	4297.63	8826.29	Survey projected to 14104.00 MD 6564.49 TVD

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

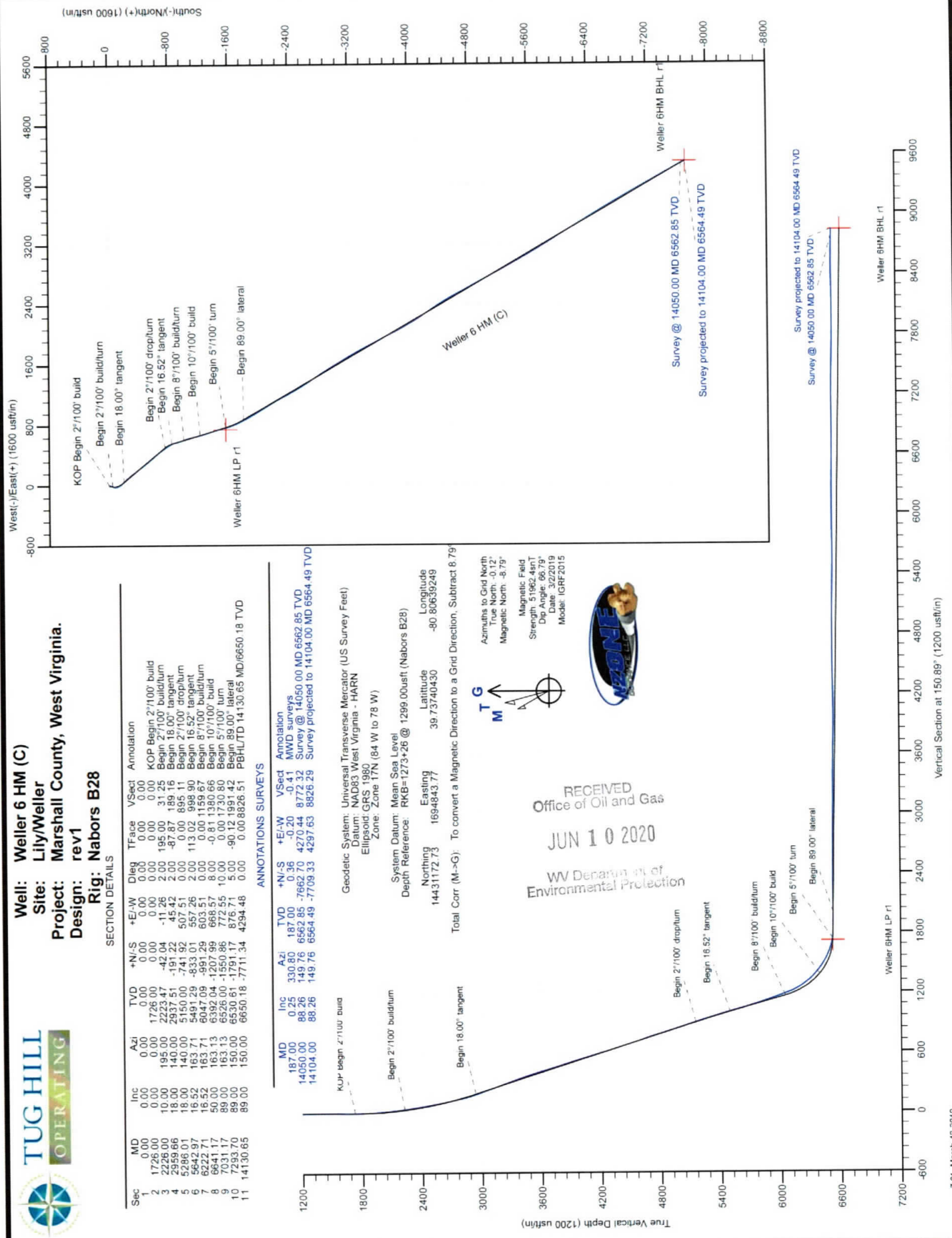
System Datum: Mean Sea Level
 Depth Reference: RKB=1273+26 @ 1299.00usft (Nabors B28)
 Northing: 14431172.73
 Easting: 1694843.77
 Latitude: 39.73740430
 Longitude: -80.80639249
 Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Subtract 8.79'



Azinuths to Grid North
 True North: -0.12°
 Magnetic North: -3.79°
 Magnetic Field
 Strength: 51962.4nT
 Dip Angle: 66.79°
 Date: 3/22/2019
 Model: IGRF2015



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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/23/2019
Job End Date:	7/9/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-02038-00-00
Operator Name:	Tug Hill Operating, LLC
Well Name and Number:	Weller 6HM
Latitude:	39.73740000
Longitude:	-80.80639249
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,564
Total Base Water Volume (gal):	15,544,111
Total Base Non Water Volume:	0



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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	Operator	Base Fluid					
			Water	7732-18-5	100.00000	87.83479	Density = 8.330
Ingredients	Listed Above	Listed Above					
			Water	7732-18-5	100.00000	0.17499	

LD-2950	Multi-chem	Friction Reducer							
					Listed Below				
SAND- PREMIUM WHIT-30/50, BULK	Halliburton	Proppant							
					Listed Below				
HYDROCHLORI C ACID	Halliburton	Solvent							
					Listed Below				
SAND- PREMIUM WHITE-40/70, BULK	Halliburton	Proppant							
					Listed Below				
FDP S1296-17	Halliburton	Corrosion Inhibitor							
					Listed Below				
MC MX 8-4743	Multi-chem	Biocide							
					Listed Below				
SAND-COMMON WHITE-100 MESH	Halliburton	Proppant							
					Listed Below				
OILPERM A	Halliburton	Non-ionic Surfactant							
					Listed Below				

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Legend LD-7750W	Multi-chem	Scale Inhibitor							
				Listed Below					
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.									
			Crystalline silica, quartz	14808-60-7	100.00000	11.86727			
			Hydrochloric acid	7647-01-0	15.00000	0.02625			
			Sodium Nitrate	7631-99-4	60.00000	0.02293			
			Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02239			
			Methanol	67-56-1	100.00000	0.00591			
			Poly(oxy-1,2-ethanediyl),alpha-tridecyl-omega-hydroxy-, branched	69011-36-5	5.00000	0.00373			
			Ethoxylated alcohol	Proprietary	5.00000	0.00373			Denise Tuck, Halliburton, 3000 N. Sam Houston Pkwy E., Houston, TX 77032, 281-871-6226
			Phosphonic Acid Salt	Proprietary	5.00000	0.00044			
			Ethanol	64-17-5	60.00000	0.00039			
			Oxyalkylated phenolic resin	Proprietary	30.00000	0.00026			
			Heavy aromatic petroleum naphtha	64742-94-5	30.00000	0.00019			
			Modified thiourea polymer	Proprietary	30.00000	0.00018			
			Poly(oxy-1,2-ethanediyl), alpha-(4-nonylphenyl)-omega-hydroxy-, branched	127087-87-0	5.00000	0.00003			
			Naphthalene	91-20-3	5.00000	0.00003			
			Ethoxylated alcohols	Proprietary	5.00000	0.00003			
			Propargyl alcohol	107-19-7	5.00000	0.00003			
			1,2,4 Trimethylbenzene	95-63-6	1.00000	0.00001			

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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 N-6HM
529.676± ACRES**

Number	TAX MAP-PARCEL	ADJOINER OWNER	ACRES
S1	22-7.1	TH EXPLORATION II, LLC & ATINUM MARCELLUS I, LLC	21.68
S2	22-7	PATRICIA ACCETTOLO ET AL.	25.02
S3	22-1	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	JAMES WILEY	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	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 HOLEUTM. NAD83, ZONE 17
IN METERS**N) 4,398,630.24****E) 516,589.42****LANDING POINT 1**UTM. NAD83, ZONE 17
IN METERS**N) 4,398,083.89****E) 516,856.76****BOTTOM HOLE**UTM. NAD83, ZONE 17
IN METERS**N) 4,396,279.82****E) 517,898.38**P.S.
708

David L Jackson



TUG HILL
OPERATING

OPERATOR'S

API #: 47-051-02038

WELL #: Weller 6HM

DISTRICT: Franklin

COUNTY: Marshall

STATE: WV

WELL PLAT

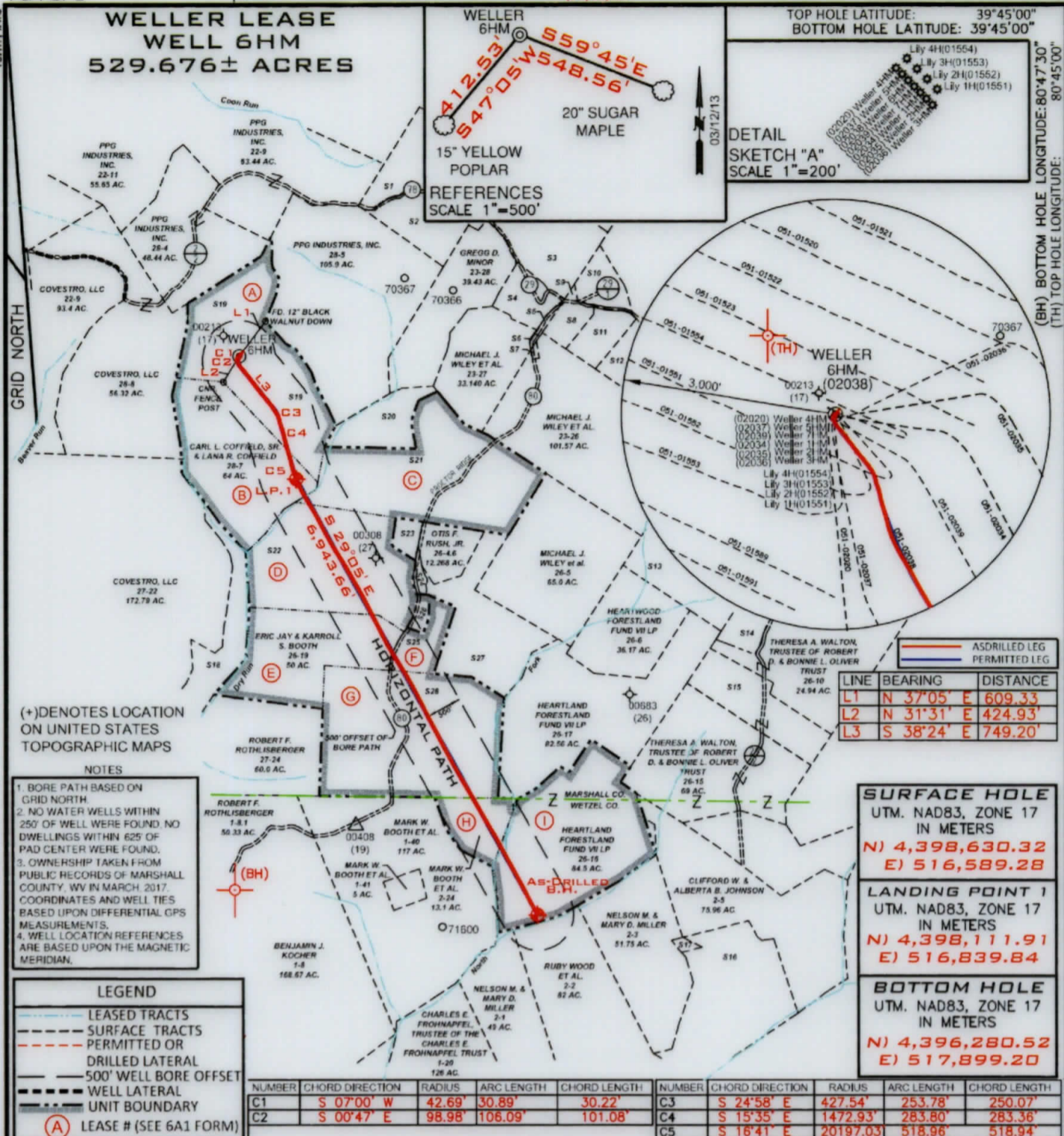
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DATE: 04/17/2020

WELLER LEASE WELL 6HM 529.676± ACRES

WELLER 6HM

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



LINE	BEARING	DISTANCE
L1	N 37°05' E	609.33
L2	N 31°31' E	424.93
L3	S 38°24' E	749.20

SURFACE HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,630.32
E) 516,589.28

LANDING POINT 1
UTM. NAD83, ZONE 17
IN METERS
N) 4,398,111.91
E) 516,839.84

BOTTOM HOLE
UTM. NAD83, ZONE 17
IN METERS
N) 4,396,280.52
E) 517,899.20

(+) 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 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 - WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.

LEGEND

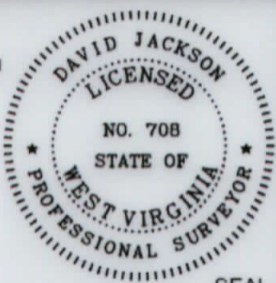
- LEASED TRACTS
- SURFACE TRACTS
- PERMITTED OR DRILLED LATERAL
- 500' WELL BORE OFFSET
- WELL LATERAL
- UNIT BOUNDARY
- LEASE # (SEE 6A1 FORM)

NUMBER	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH	NUMBER	CHORD DIRECTION	RADIUS	ARC LENGTH	CHORD LENGTH
C1	S 07°00' W	42.69'	30.89'	30.22'	C3	S 24°58' E	427.54'	253.78'	250.07'
C2	S 00°47' E	98.98'	106.09'	101.08'	C4	S 15°35' E	1472.93'	283.80'	283.36'
					C5	S 16°41' E	20197.03'	518.96'	518.94'

FILE NUMBER _____
DRAWING NUMBER WELLER_WP_6HM
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
601 57TH STREET, SE
CHARLESTON, WV 25304

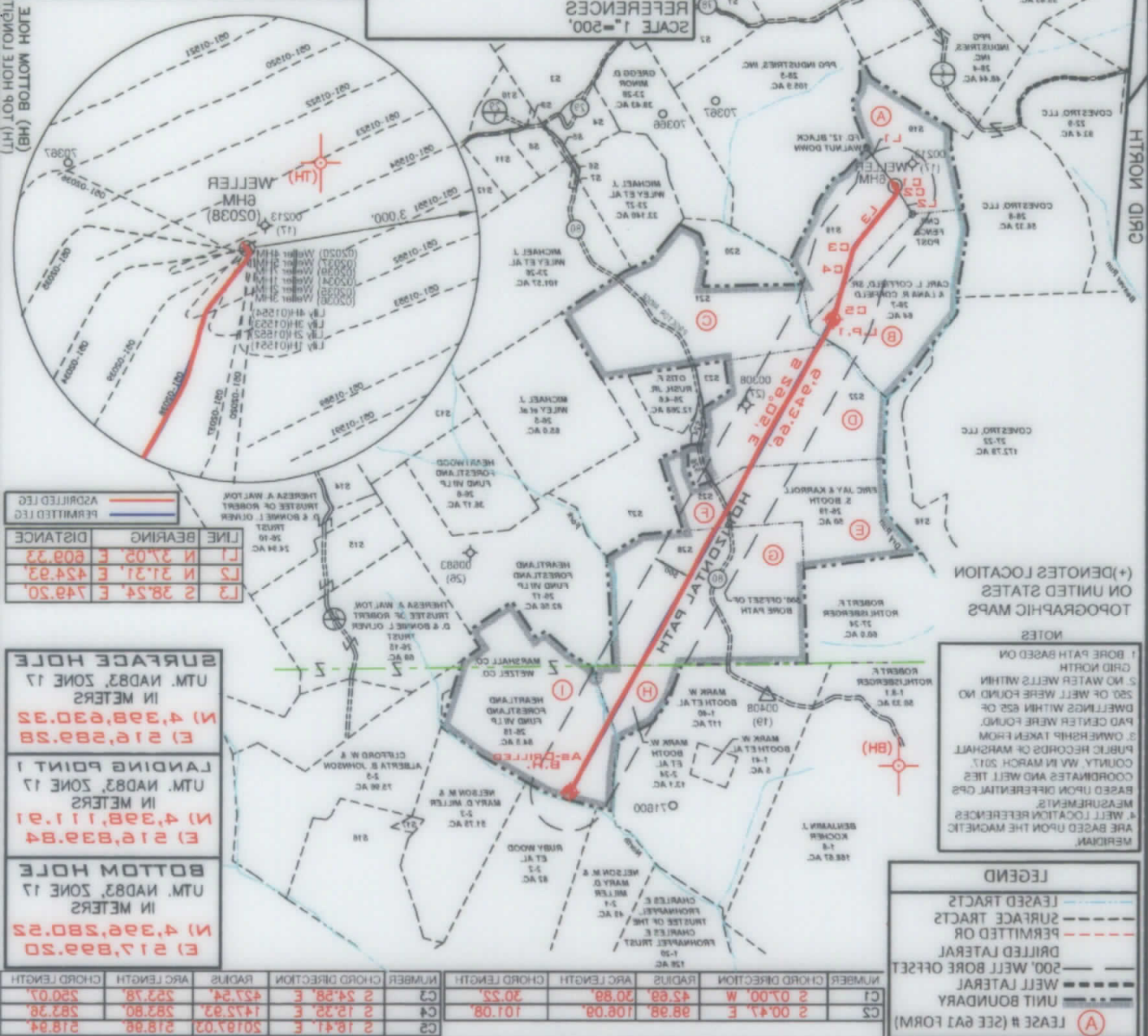
DATE: APRIL 17, 2020
OPERATORS WELL NO. WELLER 6HM
API WELL NO. 47-051-02038
STATE WV COUNTY FRANKLIN PERMIT FRANKLIN-02038

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION ELEVATION 1272.4' 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
PLUG & ABANDON ___ CLEAN OUT & REPLUG ___
TARGET FORMATION MARCELLUS ESTIMATED DEPTH TVD: 6,564.59' TMD: 14,104'
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

WELLER LEASE WELL 6HM 229.67± ACRES



NOTES
1 BORE PATH BASED ON GRID NORTH
2 NO WATER WELLS WITHIN 250' OF WELL FOUND
3 DWELLINGS WITHIN 650' OF WELL FOUND
4 OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH 2017
5 COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS
6 WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN

LEGEND
LEASSED TRACTS
SURFACE TRACTS
PERMITTED OR
DRILLED LATERAL
200' WELL BORE OFFSET
WELL LATERAL
UNIT BOUNDARY
LEASE # (SEE 6A1 FORM)

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
DAVID JACKSON
PROFESSIONAL SURVEYOR
STATE OF WEST VIRGINIA
NO. 708
LICENSED

JACKSON SURVEYING INC.
P.O. Box 1480
Clarksburg, WV 26302
304-823-5881

FILE NUMBER	
DRAWING NUMBER	WELLER_WP_6HM
SCALE	1" = 2000'
MINIMUM DEGREE OF ACCURACY	1/200
PROVEN SOURCE OF ELEVATION	SUBMETER MAPPING
GRADE GPS	

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

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

LOCATION ELEVATION 1272.4' WATERSHED (HUC 10) French Creek - Ohio River

DISTRICT Franklin COUNTY LEASE NUMBER SEE WW-6A1 Form

QUADRANGLE New Martinsville 7 1/2'

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) A2-DRILLED

TARGET FORMATION MARCELLUS
DESIGNATED AGENT DIANA STAMPER
CT CORPORATION SYSTEM
ADDRESS 5400 D BIG TYLER ROAD
CHARLESTON, WV 25313
WELL OPERATOR TUG HILL OPERATING, LLC
ADDRESS 1320 SOUTH UNIVERSITY DRIVE, SUITE 500
FORT WORTH, TX 76107

ESTIMATED DEPTH TVD: 6,264.29' TMD: 14,104'
PLUG & ABANDON ___ CLEAN OUT & REPLUG ___

PERMIT 47-051-02038 STATE COUNTY PERMIT

DATE: APRIL 17, 2020

OPERATORS WELL NO. WELLER 6HM

AP1 WELL NO. 47-051-02038