

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

JUL 28 2020

API 47-051-02116 County Marshall District Franklin WV Department of Environmental Protection
Quad Powhatan Point 7.5' Pad Name Woodford Field/Pool Name
Farm name CNX RCPC, LLC Well Number Woodford 4HM
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 4,406,032.78 Easting 516,093.02
Landing Point of Curve Northing 4,406,416.84 Easting 516,022.00
Bottom Hole Northing 4,403,907.67 Easting 517,462.05

Elevation (ft) 1234.03' 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 10/23/2018 Date drilling commenced 4/10/2019 Date drilling ceased 8/23/2019
Date completion activities began 2/10/2020 Date completion activities ceased 2/27/2020
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 838' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1595' Void(s) encountered (Y/N) depths N
Coal depth(s) ft 734-740', 832-838' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:
Jim Mulholland
8/12/2020

API 47-051 - 02116 Farm name CNX RCPC, LLC Well number Woodford 4HM

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"	925'	NEW	54.5#	N/A	Y
Coal	17 1/2"	13 3/8"	925'	NEW	54.5#	N/A	Y
Intermediate 1	12 1/4"	9 5/8"	2,749'	NEW	36#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8 3/4"	5 1/2"	17,188'	NEW	20#	N/A	Y
Tubing		2 3/8"	8,594'	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	1014	15.6	1.19	1225	0	8
Coal	A	1014	15.6	1.19	1225	0	8
Intermediate 1	A	797	15.6	1.19	1098	0	8
Intermediate 2							
Intermediate 3							
Production	A	4098	14.5	1.17	4775	0	8
Tubing							

Drillers TD (ft) 17,216' Loggers TD (ft) n/a
 Deepest formation penetrated Marcellus Plug back to (ft) n/a
 Plug back procedure n/a

Kick off depth (ft) 6,123'

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 _____

WOODFORD 4HM

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	2022	2110	2025	2116	Sandstone
Big Lime	2110	2152	2116	2157	Limestone
Big Injun	2152	2498	2157	2510	Sandstone
Weir	2498	2624	2510	2638	Sandstone
Berea	2624	2847	2638	2864	Sandstone
Gordon	2847	2894	2864	2912	Sandstone
Fifty Foot	2894	3454	2912	3494	Sandstone
Speechley	3454	4826	3494	5355	Sandstone
Benson	4826	5195	5355	5859	Sandstone
Alexander	5195	5816	5859	6531	Siltstone
Rhinestreet	5816	6178	6531	6946	Black shale
Middlesex	6178	6264	6946	7093	Black shale
Geneseo/Burkett	6264	6297	7093	7164	Black shale
Tully	6297	6318	7164	7222	Limestone
Hamilton	6318	6339	7222	7292	Grey shale
Marcellus	6339	-	7292	-	Black shale

Woodford 4HM

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	86.2	7514	5687	3938	474080	9394	0
2	86.3	8599	5575	4719	533240	10013	0
3	89.9	7803	5377	5119	527160	9695	0
4	89.2	7200	4824	4677	525540	9844	0
5	90	7370	5417	4915	531880	9816	0
6	90.1	7422	5318	4357	525460	10005	0
7	87.6	7177	5025	4677	526040	10159	0
8	89.6	7436	5463	4691	532200	10115	0
9	87.1	7335	5321	4783	524600	9810	0
10	87.8	7476	5077	4813	519740	9704	0
11	88.6	7383	5261	4976	523780	9745	0
12	87.3	7297	5311	4594	523080	10016	0
13	90.1	7162	5045	5010	530040	9924	0
14	88.5	7271	5127	4889	523480	9834	0
15	88.9	7141	5055	4855	524440	9837	0
16	86.6	8031	5281	4688	521460	9715	0
17	88.6	7311	5005	4579	529140	10049	0
18	88.1	7020	4851	4684	524260	10002	0
19	88.7	7012	5024	4784	528700	9883	0
20	90.2	7259	5109	4658	524000	9836	0
21	90.1	7203	5408	4932	526880	9806	0
22	90	7130	5385	4928	529300	9639	0
23	88.2	6944	5502	5000	525100	10001	0
24	88.7	6846	5257	4840	530920	9635	0
25	88	6941	5422	4916	532920	9729	0
26	88.3	6889	4841	4637	525440	10190	0
27	88.9	6830	5005	4744	530680	9631	0
28	88.2	6762	5011	4507	530000	9583	0
29	90.2	6827	4964	4735	519380	9609	0
30	90.5	6756	5449	5218	526740	9589	0
31	87.6	6565	4927	4405	530560	9995	0
32	87.7	6522	4952	5169	525340	9603	0

33	88.3	6580	5214	5192	527140	9645	0
34	91	6562	4938	4817	528940	9643	0
35	90.7	6513	4893	4692	526120	9612	0
36	89.8	6450	4809	5468	528200	10904	0
37	88.7	6451	4769	4734	525500	9928	0
38	90.7	6331	4905	4810	525960	9728	0
39	88.5	6468	4786	5195	524900	9517	0
40	88.5	6270	4690	5233	530740	9597	0
41	90.7	6521	4860	4498	524960	9427	0
42	89.5	6549	4900	4598	524420	9561	0
43	89.1	6301	4630	5132	521960	9506	0
44	89.7	7243	4693	4310	526460	9490	0
45	87.9	7214	4836	4676	525780	9782	0
46	87.5	6246	4999	4261	526300	9750	0
47	90.6	6277	5043	5048	525460	9467	0
48	89.7	6179	5033	4514	529520	9590	0
49	89.6	6215	5171	4800	524040	9363	0
50	89.8	6275	5085	4713	525920	9468	0
51	89.2	6382	4756	4336	527320	9386	0
52	88.5	6089	4740	5258	519840	9459	0
53	90.8	6206	4856	4860	534380	9607	0
54	89.5	6104	4911	4043	527200	10284	0

**Woodford 4HM
PERFORATION RECORD**

Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD. Ft.	Number of Perforations	Formation(s)
1	2/10/2020	16799	16945	48	Marcellus
2	2/10/2020	16625	16771	48	Marcellus
3	2/11/2020	16452	16597	48	Marcellus
4	2/11/2020	16278	16424	48	Marcellus
5	2/11/2020	16104	16250	48	Marcellus
6	2/12/2020	15931	16077	48	Marcellus
7	2/12/2020	15757	15903	48	Marcellus
8	2/12/2020	15584	15729	48	Marcellus
9	2/13/2020	15410	15556	48	Marcellus
10	2/13/2020	15236	15382	48	Marcellus
11	2/13/2020	15063	15209	48	Marcellus
12	2/14/2020	14889	15035	48	Marcellus
13	2/14/2020	14195	14341	48	Marcellus
14	2/15/2020	14542	14688	48	Marcellus
15	2/15/2020	14368	14514	48	Marcellus
16	2/15/2020	14195	14341	48	Marcellus
17	2/16/2020	14021	14167	48	Marcellus
18	2/16/2020	13848	13993	48	Marcellus
19	2/16/2020	13674	13820	48	Marcellus
20	2/17/2020	13500	13646	48	Marcellus
21	2/17/2020	13327	13473	48	Marcellus
22	2/18/2020	13153	13299	48	Marcellus
23	2/18/2020	12980	13125	48	Marcellus
24	2/18/2020	12806	12952	48	Marcellus
25	2/19/2020	12632	12778	48	Marcellus
26	2/19/2020	12459	12605	48	Marcellus
27	2/19/2020	12285	12431	48	Marcellus
28	2/20/2020	12112	12257	48	Marcellus
29	2/20/2020	11938	12084	48	Marcellus
30	2/20/2020	11764	11910	48	Marcellus
31	2/21/2020	11591	11737	48	Marcellus
32	2/21/2020	11417	11563	48	Marcellus
33	2/21/2020	11244	11389	48	Marcellus
34	2/22/2020	11070	11216	48	Marcellus
35	2/22/2020	10896	11042	48	Marcellus
36	2/22/2020	10723	10869	48	Marcellus
37	2/23/2020	10549	10695	48	Marcellus
38	2/23/2020	10376	10521	48	Marcellus
39	2/23/2020	10202	10348	48	Marcellus
40	2/24/2020	10028	10174	48	Marcellus
41	2/24/2020	9855	10001	48	Marcellus
42	2/24/2020	9681	9827	48	Marcellus
43	2/24/2020	9508	9653	48	Marcellus
44	2/24/2020	9334	9480	48	Marcellus
45	2/25/2020	9160	9306	48	Marcellus
46	2/25/2020	8987	9133	48	Marcellus

47	2/25/2020	8813	8959	48	Marcellus
48	2/25/2020	8640	8785	48	Marcellus
49	2/26/2020	8466	8612	48	Marcellus
50	2/26/2020	8292	8438	48	Marcellus
51	2/26/2020	8119	8265	48	Marcellus
52	2/26/2020	7945	8091	48	Marcellus
53	2/26/2020	7772	7917	48	Marcellus
54	2/27/2020	7598	7744	48	Marcellus



Well: Woodford 04HM (D)
Site: Woodford
Project: Marshall County, West Virginia
Design: rev3
Rig: Nabors X08

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dieg	Trace	Vsect	Annotation
1	5585.00	44.04	335.81	5063.41	1704.98	-590.22	0.00	0.000-1806.37	Survey @ 5685.00 MD 5063.41 TVD	
2	5685.00	44.04	335.81	5135.30	1768.39	-718.70	0.00	0.000-1875.08	KOP Begin 7.2'100' droplum	
3	6067.12	24.67	347.14	5367.32	1916.79	-772.55	7.20	166.350-2028.92	Begin 24.67' tangent section	
4	6123.44	24.67	347.14	5416.50	1939.70	-777.79	0.00	0.000-2051.00	Begin 8'7100' buildum	
5	7037.46	50.00	143.91	6242.58	1827.02	-587.46	8.00	161.596-1852.99	Begin 10'7100' buildum	
6	7431.38	89.00	150.00	6376.00	1522.45	-392.37	10.00	9.622-1491.31	Begin 89.00' lateral section	
7	17231.36	89.00	150.00	6549.00	-6963.32	4506.82	0.00	0.000 8294.53	PBHLTD 17231.36 MD 6549.00 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=1235+33 @ 1268.00ft (Nabors X08)
 Northing 14455459.60
 Easting 1693214.92
 Latitude 39.80411257
 Longitude -80.81200527
 Total Corr (M->G):
 To convert a Magnetic Direction to a Grid Direction, Subtract 8.808°

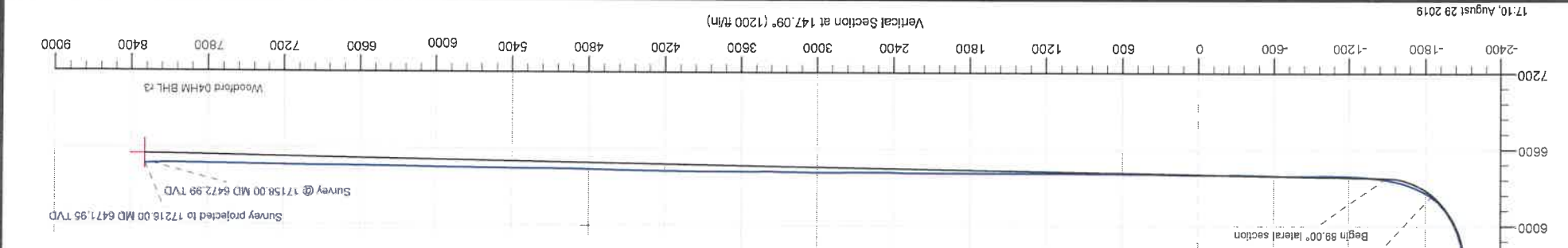
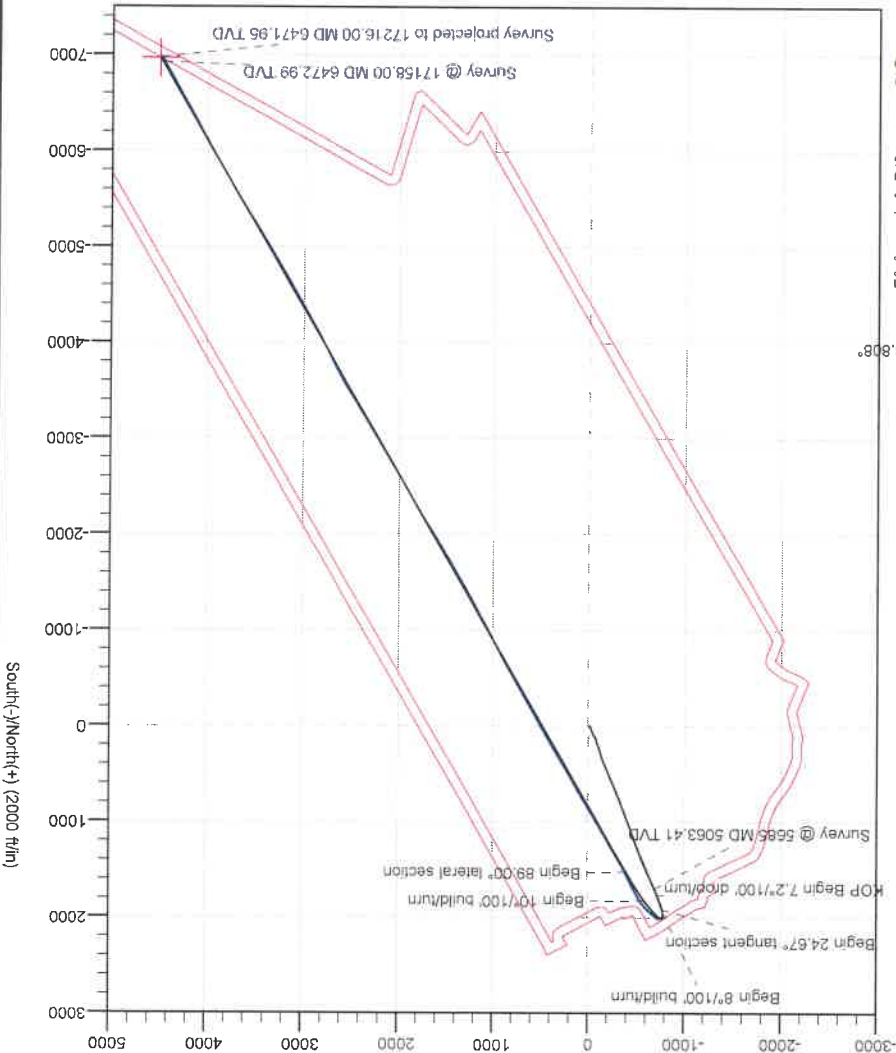


Azimuths to Grid North
 True North: -0.12°
 Magnetic North: -8.81°
 Magnetic Field
 Strength: 51944.99mT
 Dip Angle: 66.80°
 Date: 8/14/2019
 Model: IGRF2015



ANNOTATIONS SURVEYS

MD	Inc	Azi	TVD	+N/S	+E/W	Vsect	Annotation
17158.00	91.03	77.99	151.00	0.10	0.49	0.18	MWD surveys
17158.00	91.03	150.72	6472.99	-5921.97	4463.46	8236.26	Survey @ 17158.00 MD 6472.99 TVD
17216.00	91.03	150.72	6471.95	-5972.55	4491.82	8294.13	Survey projected to 17216.00 MD 6471.95 TVD



Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date	2/10/2020
Job End Date	2/27/2020
State	West Virginia
County	Marshall
API Number	47-051-02116-00-00
Operator Name	Tug Hill Operating, LLC
Well Name and Number	Woodford 4HM
Latitude	39.80411257
Longitude	-80.81200527
Datum	NAD27
Federal Well	NO
Indian Well	NO
True Vertical Depth	6,437
Total Base Water Volume (gal)	22,139,106
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
Water	Tug Hill Operating	Carrier/Base Fluid	Water	7732-18-5	100.00000	68.26274	None
Sand (30/50 White Proppant)	Profrac	Proppant	Silica Substrate	14808-60-7	100.00000	21.78376	None
Sand (40/70 White Proppant)	Profrac	Proppant	Silica Substrate	14808-60-7	100.00000	7.21508	None
Sand (100 Mesh Proppant)	Profrac	Proppant	Silica Substrate	14808-60-7	100.00000	2.28831	None
Hydrochloric Acid (7.5%)	PVS	Acidizing	Water	7732-18-5	85.00000	0.29766	None
			Hydrochloric Acid (Hydrogen Chloride)	7647-01-0	37.00000	0.12957	None
ProSlick 710	Naico	Friction Reducer	Hydroreated Light Petroleum Distillate	64742-47-8	30.00000	0.01839	None
			inorganic salt	PROPRIETARY	10.00000	0.00613	None
			Oxyalkylated alcohol	PROPRIETARY	5.00000	0.00307	None



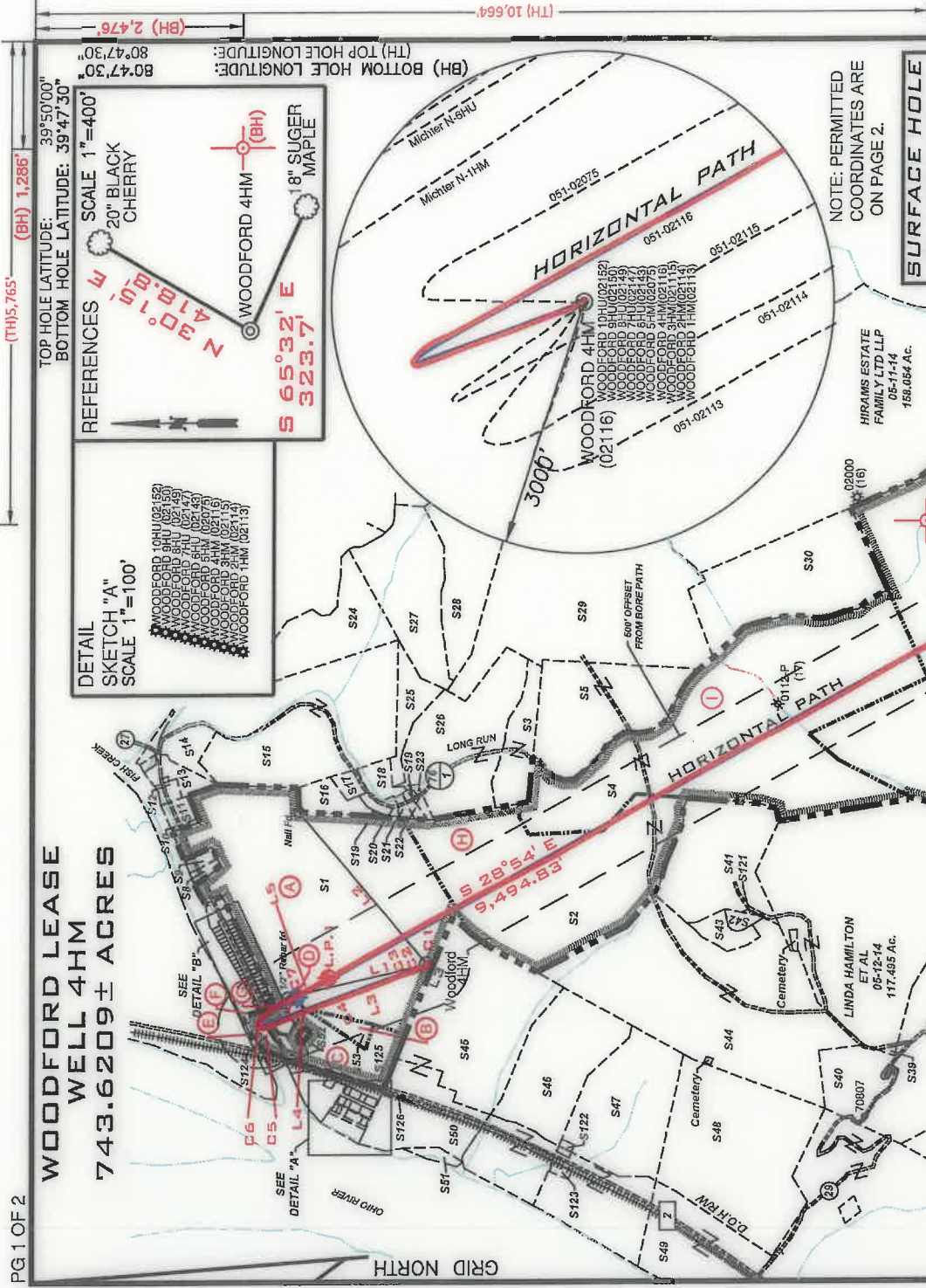
MC MX 9-4743	Multi-Chem	Bicide					
LD-7750W	Multi-Chem	Scale Inhibitor	Methanol	67-56-1	60.00000	0.00406	None
PROFE 105	ProFrac	Iron Control	Phosphonic Acid Salt	Proprietary	5.00000	0.00034	None
Prohib 100	ProFrac	Acid Inhibitor	Citric Acid	77-92-9	100.00000	0.00131	None
			2-Propyn-1-ol compound w/ methyloxirane	38172-91-7	15.00000	0.00016	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	0.29766	
			Inorganic salt	PROPRIETARY	10.00000	0.00613	
			Oxyalkylated alcohol	PROPRIETARY	5.00000	0.00307	
			Phosphonic Acid Salt	Proprietary	5.00000	0.00034	

* 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)

**WOODFORD LEASE
WELL 4HM
743.6209± ACRES**



LINE	BEARING	DISTANCE
L1	N 12°58' W	1711.81'
L2	N 49°58' E	2388.10'
L3	N 20°21' W	58.86'
L4	N 20°25' W	1917.03'
L5	S 45°32' E	158.40'

LEGEND
 - - - - - LEASED TRACTS
 - - - - - SURFACE TRACTS
 - - - - - UNIT BOUNDARY
 (A) LEASE # (SEE 6A1 FORM)

NOTES
 1. BORE PATH BASED ON GRID NORTH.
 2. NO WATER WELLS WITHIN 250' OF WELL WERE FOUND, NO DWELLINGS WITHIN 625' OF PAD CENTER WERE FOUND.
 3. OWNERSHIP TAKEN FROM PUBLIC RECORDS OF MARSHALL COUNTY, WV IN MARCH, 2017. COORDINATES AND WELL TIES BASED UPON DIFFERENTIAL GPS MEASUREMENTS.
 4. WELL LOCATION REFERENCES ARE BASED UPON THE MAGNETIC MERIDIAN.

ASDRILLED LEG
 PERMITTED LEG
 (-) DENOTES LOCATION ON UNITED STATES TOPOGRAPHIC MAPS

CURVE	CHORD	BEARING	CHORD LENGTH	RADIUS	ARC LENGTH
C1	N 74.14° W	7.53	4.05	5.78	5.78
C2	N 27.78° W	26.89	110.86	37.09	37.09
C3	N 39.02° W	61.10	408.81	61.16	61.16
C4	N 08.48° E	78.65	72.90	63.07	63.07
C5	S 77.34° E	72.78	53.40	80.08	80.08
C6	S 39.73° E	248.51	490.27	247.35	247.35
C7	S 27.21° E	486.53	982.51	486.53	486.53

NOTE: PERMITTED COORDINATES ARE ON PAGE 2.

SURFACE HOLE
 UTM. NAD83, ZONE 17
 IN METERS
N) 4,406,0932.78
E) 516,0932.03

LANDING POINT 1
 UTM. NAD83, ZONE 17
 IN METERS
N) 4,406,416.72
E) 516,022.09

BOTTOM HOLE
 UTM. NAD83, ZONE 17
 IN METERS
N) 4,409,907.55
E) 517,462.13

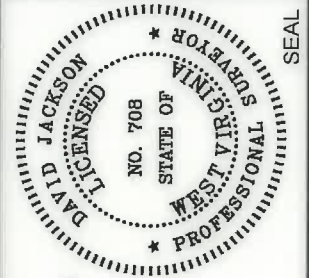
FILE NUMBER
 DRAWING NUMBER **WOODFORD_WP_4HM**
 SCALE **1" = 2000'**
 MINIMUM DEGREE OF ACCURACY **1/200**
 PROVEN SOURCE OF ELEVATION **SUBMETER MAPPING**
 GRADE GPS

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

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 L Jacobson

JACKSON SURVEYING INC.
 P.O. Box 1460
 Clerksburg, WV 26032
 304-523-5851



DATE: **JULY 23, 2020**
 OPERATORS WELL NO. **Woodford 4HM**
 API WELL NO.

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW PERMIT
 LOCATION ELEVATION **1234.03'** WATERSHED (HUC 10) **FRENCH CREEK** - OHIO RIVER

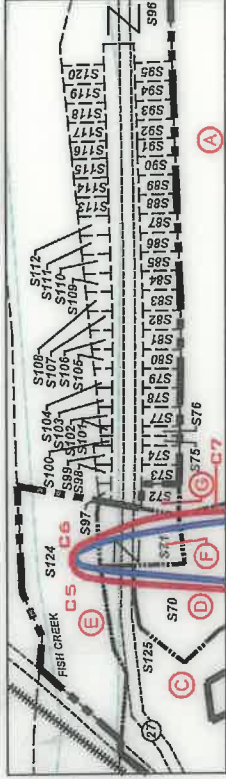
DISTRICT **FRANKLIN** COUNTY **MARSHALL**
 QUADRANGLE **POWHATAN POINT 7.5'** LEASE NUMBER **SEE WW-6A1 Form**

SURFACE OWNER **CNX RPC, LLC** ACREAGE **155.7119**
 OIL & GAS ROYALTY OWNER **HG ENERGY II APPALACHIA LC (TRACT 5-7-43)** LEASE ACREAGE **155.7119**
 PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE (SPECIFY) **ASDRILLED**

TARGET FORMATION **MARCELLUS** PLUG & ABANDON CLEAN OUT & REPLUG
 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

**WOODFORD LEASE
WELL 4HM
743.6209 ± ACRES**



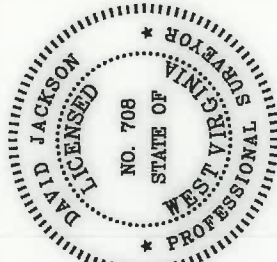
DETAIL "A"
Scale
1"=500'



DETAIL "B"
Scale
1"=500'

Number	TAX MAP-PARCEL	ADJOINER OWNER	ACRES
S1	05-07-43	CNX RCPCL, LLC	155.7119
S2	05-12-08	Amita Rae Miller (Life)	100.35
S3	05-12-10	Consolidation Coal Co./ Murray Energy	13.76
S4	05-12-12.1	Lionel L. Persinger, Et Ux.	148.09
S5	05-12-12	Lionel L. Persinger, Et Ux.	45
S6	05-11-15	Lionel L. Persinger, Et Ux.	93
S7	05-15-01	Marcus Sharp & David Schlabach, Hrs.	121
S8	05-7B-49	Cassidy Rain Carpenter	1.1441
S9	05-7B-48	Cassidy Rain Carpenter	1.325
S10	05-07-43.3	M. Frank Mason	0.327
S11	05-07-43.2	M. Frank Mason	1.36
S12	05-07-38	John K. Persinger, Et Ux.	2.65
S13	05-07-36	John K. Persinger	4.329
S14	05-07-35	Samuel L. Persinger	10.708
S15	05-07-39	Lionel L. Persinger, et ux	57
S16	05-07-42.1	Holly Rice	5.99
S17	05-07-41	James A. Wade	1
S18	05-07-42.5	Matthew V. Conner, et al	3.791
S19	05-07-42	Tracy M. Kesterson	0.53
S20	05-07-44	Crystal B. Darrah	1.726
S21	05-07-42.2	Steven & Rhonda Lloyd	0.85
S22	05-07-42.3	Joshua David Hartley	0.886
S23	05-07-42.4	Jason Reed Hartley	0.94
S24	05-07-33	William N. Roupe	24.6
S25	05-12-09	Lionel & Mary Lee Persinger	10.15
S26	05-12-10.1	Consolidation Coal Co./ Murray Energy	38.48
S27	05-11-1.4	Larry W. Dunlap, et al	32.493
S28	05-11-1.1	Larry W. Dunlap & Charles Leroy Dunlap	34.405
S29	05-11-21	Karen Reed, et al	112.67
S30	05-12-11	Wesley B. Bryan & Wesley R. Bryan II	52.478
S31	05-15-04	Joseph J. Kramer, et ux	41.106
S32	05-15-03	Joseph J. Kramer, et ux	36.10
S33	05-15-02	John David Petrock, et ux	5
S34	05-15-14	John David Petrock, et ux	25
S35	05-15-12	John David Petrock, et ux	150.23
S36	05-15-15	Robert L. Shields, et al	49
S37	05-14-12	Dale R. Gallaher, et al	135.100
S38	05-14-10	Wanda P. Rine (Life)	107.372
S39	05-12-15	Woodlana Hillis Church of God Trs.	0.375
S40	05-12-21.1	Robert W. Jr. & Wendy L. Riggenbach	14.222
S41	05-12-13	Linda Hamilton, et al	41.887
S42	05-12-7.1	Raymond K. Miller	1.609
S43	05-12-7.2	Raymond K. Miller	4.66
S44	05-12-07	Robert Wm. Riggenbach, et ux	104.231
S45	05-12-02	CNX RCPCL, LLC	60.68
S46	05-12-03	CNX LAND, LLC	62.30
S47	05-12-05	CNX LAND, LLC	61.883
S48	05-12-06	CNX RCPCL, LLC	70.81
S49	05-12-6.2	Consolidation Coal Co./ Murray Energy	25.50
S50	05-12-2.1	Consolidation Coal Co./ Murray Energy	22

SURFACE HOLE UTM, NAD83, ZONE 17 IN METERS N) 4,406,032.90 E) 516,092.94
LANDING POINT 1 UTM, NAD83, ZONE 17 IN METERS N) 4,406,506.18 E) 515,967.99
BOTTOM HOLE UTM, NAD83, ZONE 17 IN METERS N) 4,403,910.48 E) 517,466.62



P.S.
708
David L. Jackson



TUG HILL
OPERATING

Number	TAX MAP-PARCEL	ADJOINER OWNER	ACRES
S51	05-12-01	US of America	1.68
S52	05-07-43.4	Ida Campbell	0.403
S53	05-07-43.1	State Road Commission	1.48
S54	05-7A-17	Carol Martin & Harry L. Yoho	0.3067
S55	05-7A-18	Barbara Anderson	0.1530
S56	05-7A-19	Barbara Anderson	0.3060
S57	05-7A-20	Betty Sexton	0.1204
S58	05-7A-24	Rick A. Kosky	0.3152
S59	05-7A-23	Harold S. Young, et ux	0.3067
S60	05-7A-22	Richard Hyer, et ux	0.1530
S61	05-7A-21	David A. Beyer	0.1866
S62	05-7A-25	Rick A. Kosky	0.1638
S63	05-7A-26	Lance Clark	0.4531
S64	05-7A-27	Paul W. Barrett	0.1495
S65	05-7A-28	Richard Hyer, et ux	0.1093
S66	05-7A-29	Richard Hyer, et ux	0.1085
S67	05-7A-30	Richard Hyer, et ux	1.9
S68	05-7A-31	WVA Dept. of Natural Resources	3.18
S69	05-7A-32	Dawn Thompson Tennant	0.3091
S70	05-7A-02	CNX RCPCL, LLC	2.23
S71	05-7A-01	Lucille Myers	0.529
S72	05-7B-25	Cindy D. Aliff	0.1673
S73	05-7B-26	Cindy D. Aliff	0.1148
S74	05-7B-27	Patricia A. Johnson	0.1148
S75	05-7B-28	Patricia A. Johnson	0.0574
S76	05-7B-28.1	Patricia A. Johnson	0.0574
S77	05-7B-29	Patricia A. Johnson	0.1148
S78	05-7B-30	Cindy D. Aliff, et al	0.1148
S79	05-7B-31	Cindy D. Aliff, et al	0.1148
S80	05-7B-32	Albert J. Anderson, Jr.	0.1148
S81	05-7B-33	Albert J. Anderson, Jr.	0.1182
S82	05-7B-34	Albert J. Anderson, Jr.	0.1148
S83	05-7B-35	Albert J. Anderson, Jr.	0.1217
S84	05-7B-36	Albert J. Anderson, Jr.	0.1148
S85	05-7B-37	Teresa & Thomas Gouldsberry	0.1148
S86	05-7B-38	Teresa & Thomas Gouldsberry	0.1148
S87	05-7B-39	Teresa & Thomas Gouldsberry	0.1148
S88	05-7B-40	Teresa & Thomas Gouldsberry	0.1148
S89	05-7B-41	Teresa & Thomas Gouldsberry	0.1148
S90	05-7B-42	Teresa & Thomas Gouldsberry	0.1194
S91	05-7B-43	Teresa & Thomas Gouldsberry	0.1148
S92	05-7B-44	Daniel D. & Mary E. Robinson	0.1148
S93	05-7B-45	Daniel D. & Mary E. Robinson	0.1145
S94	05-7B-46	Daniel D. Robinson, et ux	0.1148
S95	05-7B-47	Daniel D. Robinson, et ux	0.1148
S96	05-7B-24	Cindy D. Aliff	0.0354
S97	05-7B-23	Cindy D. Aliff	0.0471
S98	05-7B-22	Patricia A. Johnson	0.0505
S99	05-7B-21	Patricia A. Johnson	0.0287
S100	05-7B-21.1	Patricia A. Johnson	0.0296
S101	05-7B-20	Patricia A. Johnson	0.0626
S102	05-7B-19	Cindy D. Aliff, et al	0.0712
S103	05-7B-18	Cindy D. Aliff, et al	0.0763
S104	05-7B-17	Albert J. Anderson, Jr.	0.0849
S105	05-7B-16	Albert J. Anderson, Jr.	0.0903
S106	05-7B-15	Albert J. Anderson, Jr.	0.0970
S107	05-7B-14	Albert J. Anderson, Jr.	0.0991
S108	05-7B-13	Albert J. Anderson, Jr.	0.1067
S109	05-7B-12	Teresa & Thomas Gouldsberry	0.1113
S110	05-7B-11	Teresa & Thomas Gouldsberry	0.1159
S111	05-7B-10	Teresa & Thomas Gouldsberry	0.1199
S112	05-7B-09	Teresa & Thomas Gouldsberry	0.1240
S113	05-7B-08	Teresa & Thomas Gouldsberry	0.1286
S114	05-7B-07	Teresa & Thomas Gouldsberry	0.1331
S115	05-7B-06	Teresa & Thomas Gouldsberry	0.1377
S116	05-7B-05	Daniel D. & Mary E. Robinson	0.1418
S117	05-7B-04	Daniel D. & Mary E. Robinson	0.1458
S118	05-7B-03	Daniel D. Robinson, et ux	0.1504
S119	05-7B-02	Daniel D. Robinson, et ux	0.1550
S120	05-7B-01	Patricia L. Robinson	1.257
S121	05-12-13.1	Raymond K. Miller	0.113
S122	05-12-5.1	CNX RCPCL, LLC	0.52
S123	05-12-04	CNX RCPCL, LLC	0.93
S124	Fish Creek	State of W.V.	2.43(Calic.)
S125	Rt. 2	State Road Commission	17.62(Calic.)
S126	R.R.	CSX Transportation	4.99(Calic.)

OPERATOR'S

WELL #: WOODFORD 4HM

API #: 47-051-02116

DISTRICT: Franklin

COUNTY: Marshall

STATE: WV

WELL PLAT

PAGE 2 OF 2

DATE: 07/28/2020