

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

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Office of Oil and Gas

FEB 03 2020

WV Department of
Environmental Protection

API 47-051-01938 County MARSHALL District WEBSTER
Quad MAJORSVILLE Pad Name MAJ6HSU Field/Pool Name _____
Farm name MAJORSVILLE Well Number MAJ6EHSU
Operator (as registered with the OOG) CNX GAS COMPANY, LLC
Address 1000 CONSOL ENERGY DRIVE 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 4420604.10 Easting 538574.78
Landing Point of Curve Northing 4420227.12 Easting 538370.08
Bottom Hole Northing 4418734.05 Easting 539453.14

Elevation (ft) 1344 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)
SYNTHETIC BASED FLUID

ADDITIVES: ABS MUL (EMULSIFIER), CALCIUM CHLORIDE, FLR PLUS (GILSONITE), CLAYTONE EM (SUSPENSION AGENT), AES WA II (WETTING AGENT), LIME

Date permit issued 1/5/2018 Date drilling commenced 8/20/2018 Date drilling ceased 4/7/2019
Date completion activities began 5/20/2019 Date completion activities ceased 6/24/2019
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 175 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1960 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 716, 824 TRACE: 350, 450, 500 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

Reviewed

Spencer Thornton
for Jim Nicholson 2/5/2020

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

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As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 524235.06 (NAD 27) Easting 1705917.75 (NAD 27)
Landing Point of Curve Northing 523049.85 (NAD 27) Easting 1705218.35 (NAD 27)
Bottom Hole Northing 518060.63 (NAD 27) Easting 1708711.84 (NAD 27)



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As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 524272.274 Easting 1674482.941
Landing Point of Curve Northing 523046.467 Easting 1673790.551
Bottom Hole Northing 518087.535 Easting 1677262.612

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Coal depth(s) ft 716, 824 TRACE: 350, 450, 500 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed

~~VOID~~
Glen Nicholson
Jacqueline Shambaugh

Reviewed by: _____

1/23/2020

API 47-051 - 01938

Farm name MAJORSVILLE

Well number MAJ6EHSU

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor		30"	112	NEW	lb/ft	N/A	GROUT TO SURFACE
Surface	24"	18.625"	872	NEW	J-55 87.5lb/ft	N/A	Y - CEMENT TO SURFACE
Coal							
Intermediate 1	17.5"	13.375"	See attachment	NEW	See attachment	N/A	Y - CEMENT TO SURFACE
Intermediate 2	12.25"	9.625"	10944	NEW	P-110 47lb/ft	N/A	Y - TOC @ 1143
Intermediate 3							
Production	8.75" & 8.5"	5.5"	See attachment	NEW	See attachment	N/A	Y - TOC @
Tubing	5.5"	2.875	12,288.0	NEW	P-110 6.5 lb/ft	N/A	N/A
Packer type and depth set		N/A					

Comment Details ALL DEPTHS ARE REFERENCED TO RKB = 29' GLE

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							
Surface	CLASS A	1349	15.6	1.197	1615	0	8
Coal							
Intermediate 1	CLASS A	2247	16	1.15	2584	0	8
Intermediate 2	NEOCEM (LEAD) / HALCEM (TAIL)	1960 (LEAD) / 350 (TAIL)	13.5 (LEAD) / 15 (TAIL)	1.399 (LEAD) / 1.137 (TAIL)	2742 (LEAD) / 398 (TAIL)	1143	8
Intermediate 3							
Production	GASSTOP (LEAD) / NEOCEM (TAIL)	1350 (LEAD) / 1720 (TAIL)	16.5	1.096 (LEAD) / 1.093 (TAIL)	1480 (LEAD) / 1880 (TAIL)		8
Tubing							

Drillers TD (ft) ¹⁸⁶⁰⁷ _____ Loggers TD (ft) ¹⁸⁶⁰⁷ _____
 Deepest formation penetrated POINT PLEASANT Plug back to (ft) N/A
 Plug back procedure N/A

Kick off depth (ft) ¹¹¹³⁸ _____

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 _____ AUG 27 2019

SURFACE: Centralize first joint and then every 3rd joint to surface
INTERMEDIATE 1: Centralize first joint and then on every joint to 200' above the Storage Zone (from 13-3/8" shoe to 1,441'). Then centralize every 3rd joint from 1,441' to surface.
INTERMEDIATE 2: Centralize every 3rd joint from shoe to 2,835'
PRODUCTION: Centralize every joint from shoe to 5,029'

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS Plug and Perforation

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____

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

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API 47- 051 - 01938

Farm name MAJORSVILLE

Well number MAJ6HSU

PRODUCING FORMATION(S)

DEPTHS

Utica 12010' TVD 6166' MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 5300 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 6742 mcfpd Oil 0 bpd NGL 0 bpd Water 1190 bpd GAS MEASURED BY Estimated Orifice Pilot

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 (FRESHWATER, BRINE, OIL, GAS, H ₂ S, ETC)
UNDIFFERENTIATED SAND	0	300	0	300	SANDSTONE
UNDIFFER. SAND / SILT	300	580	300	580	SANDSTONE / SILTSTONE
UNDIFFERENTIATED SILT	580	600	580	580	SILTSTONE
UNDIFFER. SAND / SILT	600	650	600	650	SANDSTONE / SILTSTONE
UNDIFFERENTIATED LIME	650	716	650	716	LIMESTONE
SEWICKLEY COAL	716	824	716	824	LIMESTONE / SANDSTONE / SILTSTONE
PITTSBURGH COAL	824	831	824	831	SANDSTONE / SILTSTONE
UNDIFFERENTIATED SILT	831	950	831	950	SILTSTONE/ TRACES OF LIMESTONE
UNDIFFERENTIATED SAND	950	1580	950	1580	SANDSTONE / LIMESTONE / TRACES OF RED SHALE
UNDIFFERENTIATED SILT	1580	1780	1580	1780	SILTSTONE
UNDIFFERENTIATED SAND	1780	1910	1780	1910	SANDSTONE
BIG LIME	1910	1960	1910	1960	SANDSTONE / LIMESTONE
BIG INJUN	1960	2480	1960	2480	SANDSTONE/ SILTSTONE
GANTZ	2480	2790	2480	2790	SILTSTONE

Please insert additional pages as applicable.

Drilling Contractor SEE ATTACHMENT
Address _____ City _____ State _____ Zip _____

Logging Company _____
Address _____ City _____ State _____ Zip _____
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Cementing Company SEE ATTACHMENT
Address _____ City _____ State _____ Zip _____
WV Department of
Environmental Protection

Stimulating Company Keane
Address 5825 North Sam Houston Parkway West Suite 600 City Houston State TX Zip 77086

Please insert additional pages as applicable.

Completed by Michael Honce Telephone 304-884-2138
Signature [Signature] Title Superintendent Completions Date 8/21/2019

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

MAJ6HSU – PERFORATION RECORD – ATTACHMENT 1

Stage No.	Perforation Date	Perforation from MD ft.	Perforation to MD ft.	Number of Perforations	Formation(s)
1	5/22/2019	18,363.0	18,508.0	40	UTICA Shale
2	5/22/2019	18,142.0	18,304.0	40	UTICA Shale
3	5/22/2019	17,942.0	18,104.0	40	UTICA Shale
4	5/23/2019	17,742.0	17,904.0	40	UTICA Shale
5	5/24/2019	17,542.0	17,704.0	40	UTICA Shale
6	5/24/2019	17,342.0	17,504.0	40	UTICA Shale
7	5/25/2019	17,142.0	17,304.0	40	UTICA Shale
8	5/25/2019	16,942.0	17,104.0	40	UTICA Shale
9	5/25/2019	16,742.0	16,904.0	40	UTICA Shale
10	5/26/2019	16,542.0	16,704.0	40	UTICA Shale
11	5/26/2019	16,342.0	16,504.0	40	UTICA Shale
12	5/26/2019	16,142.0	16,304.0	40	UTICA Shale
13	5/27/2019	15,942.0	16,104.0	40	UTICA Shale
14	5/27/2019	15,742.0	15,904.0	40	UTICA Shale
15	5/27/2019	15,542.0	15,704.0	40	UTICA Shale
16	5/27/2019	15,342.0	15,504.0	40	UTICA Shale
17	5/28/2019	15,142.0	15,304.0	40	UTICA Shale
18	5/28/2019	14,942.0	15,104.0	40	UTICA Shale
19	5/29/2019	14,742.0	14,904.0	40	UTICA Shale
20	5/29/2019	14,542.0	14,704.0	40	UTICA Shale
21	5/29/2019	14,342.0	14,504.0	40	UTICA Shale
22	5/30/2019	14,142.0	14,304.0	40	UTICA Shale
23	5/30/2019	13,942.0	14,104.0	40	UTICA Shale
24	5/30/2019	13,742.0	13,904.0	40	UTICA Shale
25	5/31/2019	13,542.0	13,704.0	40	UTICA Shale
26	5/31/2019	13,342.0	13,504.0	40	UTICA Shale
27	5/31/2019	13,142.0	13,304.0	40	UTICA Shale
28	6/1/2019	12,942.0	13,104.0	40	UTICA Shale
29	6/1/2019	12,742.0	12,904.0	40	UTICA Shale
30	6/2/2019	12,542.0	12,704.0	40	UTICA Shale
31	6/2/2019	12,342.0	12,504.0	40	UTICA Shale

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MAJ6HSU – STIMULATION INFORMATION PER STAGE – ATTACHMENT 2

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (ibs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	5/22/2019	89	11,799.0	11,293.0	7,171.0	606,958.0	12,759.05	N/A
2	5/22/2019	90	12,397.0	11,349.0	7,681.0	595,207.0	11,744.00	N/A
3	5/23/2019	88	12,460.0	9,141.0	7,337.0	592,849.0	11,525.00	N/A
4	5/24/2019	85	12,331.0	10,553.0	7,952.0	597,497.0	14,441.00	N/A
5	5/24/2019	88	12,124.0	10,114.0	8,213.0	599,019.0	11,921.00	N/A
6	5/24/2019	87	12,260.0	10,531.0	8,156.0	590,171.0	11,722.00	N/A
7	5/25/2019	88	12,096.0	10,863.0	8,191.0	599,017.0	11,108.00	N/A
8	5/25/2019	85	11,513.0	9,747.0	7,850.0	593,168.0	11,018.02	N/A
9	5/25/2019	87	12,036.0	9,793.0	8,141.0	538,257.0	12,952.00	N/A
10	5/26/2019	83	11,412.0	9,382.0	8,135.0	602,812.0	10,947.95	N/A
11	5/26/2019	88	11,612.0	8,816.0	8,202.0	600,949.0	10,839.02	N/A
12	5/26/2019	89	11,935.0	11,866.0	8,044.0	603,325.0	10,313.02	N/A
13	5/27/2019	90	11,658.0	8,745.0	7,883.0	598,633.0	10,886.02	N/A
14	5/27/2019	90	11,520.0	9,842.0	8,000.0	611,556.0	11,003.02	N/A
15	5/27/2019	89	11,726.0	8,079.0	8,190.0	593,889.0	10,184.00	N/A
16	5/28/2019	89	11,624.0	9,269.0	7,675.0	599,682.0	11,163.00	N/A
17	5/28/2019	87	11,250.0	10,024.0	7,883.0	605,123.0	10,899.02	N/A
18	5/28/2019	90	11,672.0	8,632.0	7,399.0	603,155.0	10,233.00	N/A
19	5/29/2019	88	11,337.0	9,193.0	7,524.0	610,271.0	10,965.00	N/A
20	5/29/2019	90	11,709.0	9,815.0	7,713.0	599,758.0	10,261.00	N/A
21	5/30/2019	89	11,718.0	8,643.0	7,655.0	600,290.0	10,102.00	N/A
22	5/30/2019	87	11,447.0	9,068.0	8,466.0	613,260.0	11,084.00	N/A
23	5/30/2019	90	11,707.0	9,370.0	8,345.0	600,055.0	10,148.00	N/A
24	5/31/2019	90	11,724.0	9,667.0	8,166.0	600,609.0	10,101.00	N/A
25	5/31/2019	90	11,556.0	10,631.0	8,367.0	605,142.0	11,011.00	N/A
26	5/31/2019	90	11,332.0	9,401.0	7,977.0	600,742.0	10,396.00	N/A
27	6/1/2019	90	11,047.0	9,658.0	8,184.0	581,938.0	11,530.00	N/A
28	6/1/2019	90	11,266.0	9,446.0	8,015.0	606,313.0	10,518.00	N/A
29	6/1/2019	88	11,592.0	12,678.0	7,527.0	513,362.0	10,416.00	N/A
30	6/2/2019	90	11,058.0	8,843.0	8,552.0	605,397.0	10,896.00	N/A
31	6/2/2019	91	11,267.0	9,693.0	7,991.0	612,953.0	10,506.95	N/A

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INTERMEDIATE 1 CASING

N-80 68LB/FT: 0' - 2,159'
 J-55 68LB/FT: 2,159' - 3,198'

PRODUCTION CASING

P-110CY 23LB/FT: 0' - 11,923'
 Q-125 23LB/FT: 11,923' - 18,565'

LITHOLOGIES CONTINUED

LITHOLOGY / FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT NAME TVD	TOP DEPTH IN FT NAME MD	BOTTOM DEPTH IN FT NAME MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H2S, ETC)
50 FOOT	2790	2900	2790	2900	SANDSTONE
FOURTH	2900	4264	2900	4265	SANDSTONE/ SILTSTONE
ELK	4264	6366	4265	6368	SILTSTONE
RHINESTREET	6366	6625	6368	6627	SILTSTONE/ SHALE
BURKET	6625	6649	6627	6651	SHALE
TULLY	6649	6675	6651	6677	LIMESTONE
HAMILTON	6675	6789	6677	6791	SHALE
MARCELLUS	6789	6809	6791	6811	SHALE
MIDDLE MARCELLUS	6809	6828	6811	6830	SHALE
CHERRY VALLEY	6828	6833	6830	6835	SHALE
LOWER MARCELLUS	6833	6842	6835	6844	SHALE
ONONDAGA	6842	7072	6844	7074	LIME STONE
ORISKANY	7072	7180	7074	7182	SANDSTONE/ SILTSTONE
HELDERBERG	7180	7370	7182	7372	LIMESTONE
SALINA	7370	8983	7372	8985	DOLOMITE TRACES OF SALT
LOCKPORT	8983	9098	8985	9100	DOLOMITE
ROCHESTER	9098	9370	9100	9372	SHALE
PACKER SHELL	9370	9530	9372	9532	SHALE
TUSCARORA	9530	9763	9532	9765	SANDSTONE/ SILTSTONE
QUEENSTON	9763	10598	9765	10600	RED SHALE
BALD EAGLE	10598	10718	10600	10720	GREY/ RED SHALE
REEDSVILLE	10718	11718	10720	11955	SHALE
UTICA	11718	11868	11955	12262	DARK GREY SHALE
POINT PLEASANT	11868		12262		BLACK SHALE
TD				18607	

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MAJ6EHSM

47-051-01938



DRILLING CONTRACTOR

TOPHOLE

COMPLETE DRILLING SOLUTIONS
160 TECHNOLOGY DRIVE SUITE 201
CANONSBURG, PA 15317

BIG RIG

PATTERSON-UTI DRILLING COMPANY
207 CARLTON DRIVE
EIGHTY FOUR, PA 15330

CEMENTING COMPANY

(18" CASING & 13" CASING)

BJ SERVICES
11211 FARM TO MARKET 2920
TOMBALL, TX 77375

(9" CASING, PLUGBACK, & 5.5" CASING)

HALLIBURTON
121 CHAMPION WAY SUITE #210
CANONSBURG, PA 15317

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Environmental Protection

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	5/22/2019
Job End Date:	6/2/2019
State:	West Virginia
County:	Marshall
API Number:	47-051-01938-00-00
Operator Name:	CNX Gas Company LLC
Well Name and Number:	MAJ6EHSJ
Latitude:	39.93467300
Longitude:	-80.54852200
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	12,011
Total Base Water Volume (gal):	14,430,906
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	CNX	Carrier/Base Fluid	Water	7732-18-5	100.00000	85.98103	None
Sand (Proppant)	Keane	Proppant	Crystalline silica: Quartz (SiO2)	14808-60-7	100.00000	13.28507	None
Hydrochloric Acid (7.5%)	Keane	Acid Inhibitor	Water	7732-18-5	92.50000	0.57108	None
			Hydrochloric Acid	7647-01-0	7.50000	0.04630	None
KFR-48	Keane	Friction Reducer	Water	7732-18-5	47.00000	0.02642	None
			butene, homopolymer	9003-29-6	25.00000	0.01405	None
			alkanes, C16-20-iso-	90622-59-6	25.00000	0.01405	None
			Alcohols, C12-18, ethoxylated	58213-23-0	3.00000	0.00165	None
KWG-111LS	Keane	Gel	Distillates (petroleum), hydrotreated light	54742-47-8	55.00000	0.00739	None
			Guar gum	9000-30-0	55.00000	0.00739	None
KSI-22	Keane	Scale Inhibitor	Methanol	57-56-1	50.00000	0.01144	None



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MBC-516	Keane	Bioicide	2-propenoic acid, polymer with 2-(1-methyl-2-[(1-oxo-2-propenyl)amino]-1-propensulfonic acid monosodium salt and sodium phosphinite	21102224-99-2	10.00000	0.00229	None	
			glutaral	111-30-8	26.70000	0.00476	None	
			didecyltrimethylammonium chloride	7173-51-5	8.00000	0.00142	None	
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.30000	0.00095	None	
			Ethanol	64-17-5	2.80000	0.00050	None	
KFEAC-30	Keane	Iron Control	acetic acid	64-19-7	60.00000	0.00241	None	
			Citric acid	77-92-9	40.00000	0.00160	None	
KAL-12	Keane	Acid Inhibitor	Methanol	67-56-1	90.00000	0.00178	None	
			Alcohols, C7-9-iso-, C8-rich	68526-83-0	5.00000	0.00010	None	
			xylene	1330-20-7	5.00000	0.00010	None	
			prop-2-yn-1-ol	107-19-7	5.00000	0.00010	None	
			isopropyl alcohol	67-63-0	5.00000	0.00010	None	
			Fatty imidazoline	61790-69-0	5.00000	0.00010	None	
			ethylbenzene	100-41-4	1.00000	0.00002	None	
KWBO-2	Keane	Breaker	Sodium persulfate	7775-27-1	99.00000	0.00015	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	92.50000	0.57108		
			butene, homopolymer	9003-29-6	25.00000	0.01405		
			alkanes, C16-20-iso-	90622-59-6	25.00000	0.01405		
			Distillates (petroleum), hydrotreated light	64742-47-8	55.00000	0.00739		
			2-propenoic acid, polymer with 2-(1-methyl-2-[(1-oxo-2-propenyl)amino]-1-propensulfonic acid monosodium salt and sodium phosphinite	21102224-99-2	10.00000	0.00229		
			Alcohols, C12-18, ethoxylated	68213-23-0	3.00000	0.00169		
			Citric acid	77-92-9	40.00000	0.00160		
			didecyltrimethylammonium chloride	7173-51-5	8.00000	0.00142		
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.30000	0.00095		
			Ethanol	64-17-5	2.80000	0.00050		
			Fatty imidazoline	61790-69-0	5.00000	0.00010		
			xylene	1330-20-7	5.00000	0.00010		
			isopropyl alcohol	67-63-0	5.00000	0.00010		

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PAGE 2 OF 2

AS DRILLED PLAT

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			15-5/41.1
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13	CNX LAND, LLC	CONSOL PENNSYLVANIA COAL COMPANY LLC	15-11/12

PERMITTED SURFACE HOLE LOCATION (SH)
UTM 17-NAD83(M) N:4420604.10 E:538574.78
NAD83 WV NORTH N:524272.274 E:1674482.941
LAT/LON-NAD83 LAT:39°56'04.821" LON:80°32'54.680"

PERMITTED APPROX. LANDING POINT
UTM 17-NAD83(M) N:4420239.53 E:538367.68
NAD83 WV NORTH N:523087.32 E:1673783.35
LAT/LON-NAD83 LAT:39°55'53.03" LON:80°33'03.48"

PERMITTED BOTTOM HOLE LOCATION (BH)
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API WELL #: 47 51 01938
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WV Department of
Environmental Protection

JULY 22, 2019

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ENVIRONMENTAL CONSULTING SERVICES
800 WHITE OAK BOULEVARD, BRIDGEPORT, WV 26307
PHONE (304) 624-4800 FAX (304) 624-7831

BHL is located on topo map 14,761 feet south of Latitude: 39° 57' 30"
 SHL is located on topo map 8,619 feet south of Latitude: 39° 57' 30"

LINE	BEARING	DISTANCE
R1	N 83°21'07" W	204.51'
R2	N 39°36'19" W	216.92'
R3	N 02°45'26" W	148.99'
R4	N 72°51'13" W	1133.94'
R5	N 31°02'04" E	1267.95'
R6	S 06°53'54" W	1076.44'

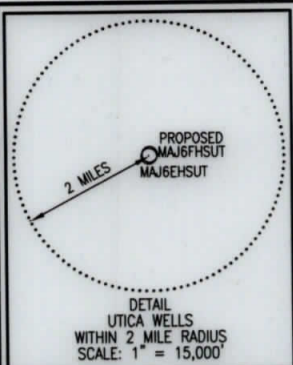
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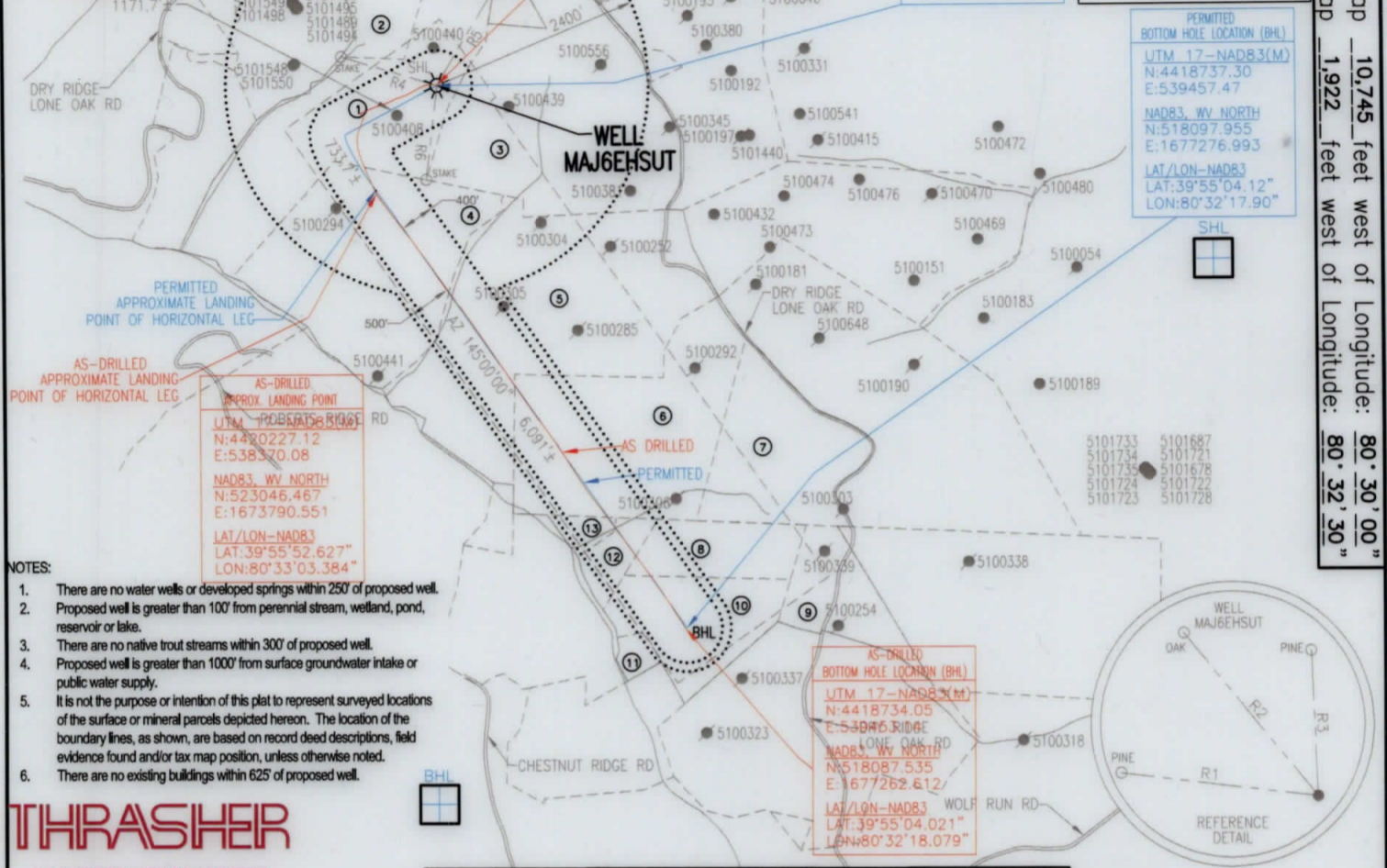
LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- LEASE BOUNDARY
- UNIT BOUNDARY
- PARCEL LINES
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- AS DRILLED
- ROAD
- STREAM CENTER LINE
- SURFACE OWNERS & LESSORS
- EXISTING WELLS
- PLUGGED WELLS

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AS DRILLED PLAT



- NOTES:
- There are no water wells or developed springs within 250' of proposed well.
 - Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
 - There are no native trout streams within 300' of proposed well.
 - Proposed well is greater than 1000' from surface groundwater intake or public water supply.
 - It is not the purpose or intention of this plat to represent surveyed locations of the surface or mineral parcels depicted hereon. The location of the boundary lines, as shown, are based on record deed descriptions, field evidence found and/or tax map position, unless otherwise noted.
 - There are no existing buildings within 625' of proposed well.

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CIVIL ENVIRONMENTAL CONSULTING-FIELD SERVICES
 800 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
 PHONE (304) 624-4188-FAX (304) 624-7831

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

BHL is located on topo map 10,745 feet west of Longitude: 80° 30' 00"
 SHL is located on topo map 1,922 feet west of Longitude: 80° 32' 30"

FILE #: MAJ6EHSUT-AS DRILLED
 DRAWING #: MAJ6EHSUT-AS DRILLED
 SCALE: 1" = 2000'
 MINIMUM DEGREE OF ACCURACY: 1/2500
 PROVEN SOURCE OF ELEVATION: U.S.G.S. MONUMENT THOMAS 1498.81'

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 REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

Signed: *George D. Six*

R.P.E.: _____ L.L.S.: P.S. No. 2000



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS WVDEP
 OFFICE OF OIL & GAS
 601 57TH STREET
 CHARLESTON, WV 25304

DATE: JULY 22, 2019
 OPERATOR'S WELL #: MAJ6EHSUT-AS DRILLED
 API WELL #: 47 51 01938
 STATE COUNTY PERMIT

Well Type: Oil Waste Disposal Production Deep Gas Liquid Injection Storage Shallow

WATERSHED: WHEELING CREEK ELEVATION: 1370.14'

COUNTY/DISTRICT: MARSHALL / WEBSTER QUADRANGLE: MAJORSVILLE, WV 7.5'

SURFACE OWNER: CNX LAND, LLC ACREAGE: 95.23±

OIL & GAS ROYALTY OWNER: CNX GAS COMPANY LLC ACREAGE: 767.801±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION

PERFORATE FORMATION PLUG & ABANDON CLEAN OUT & REPLUG OTHER CHANGE

(SPECIFY): _____

TARGET FORMATION: POINT PLEASANT ESTIMATED DEPTH: PILOT TVD: 12,200±, TVD: 11,952±, TMD: 18,600±

WELL OPERATOR: CNX GAS COMPANY LLC DESIGNATED AGENT: ANTHONY KENDZIORA
 Address: 1000 CONSOL ENERGY DRIVE Address: 1 DOMINION DRIVE
 City: CANONSBURG State: PA Zip Code: 15317 City: JANE LEW State: WV Zip Code: 26378

MAJ6EHSUT

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