

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

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API 47-095-02572 County TYLER District McELROY
Quad SHIRLEY Pad Name SHR38 Field/Pool Name _____
Farm name SECKMAN Well Number SHR38HHSM
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 320143.42 (NAD 27) Easting 1622496.99 (NAD 27)
Landing Point of Curve Northing 320443.71 (NAD 27) Easting 1623256.95 (NAD 27)
Bottom Hole Northing 310894.67 (NAD 27) Easting 1626544.95 (NAD 27)

Elevation (ft) 1012 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 2/26/2019 Date drilling commenced 3/5/2019 Date drilling ceased 6/11/2019
Date completion activities began 8/22/2019 Date completion activities ceased 9/11/2019
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 225 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1920 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 430, 580, 900 TRACES: 160, 260, 1380, 1400, 1480, 1500 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by: JEB
12/18/2019

API 47- 095 - 02572 Farm name SECKMAN Well number SHR38HHSM

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	24"	20"	112	NEW	94lb/ft	N/A	GROUT TO SURFACE
Surface	17.5"	13.375"	585	NEW	J-55 54.5lb/ft	N/A	Y - CEMENT TO SURFACE
Coal							
Intermediate 1	12.25"	9.625"	2593	NEW	J-55 36lb/ft	N/A	Y - CEMENT TO SURFACE
Intermediate 2							
Intermediate 3							
Production	8.75" & 8.5"	5.5"	17213	NEW	P-110 20lb/ft	N/A	Y - TOC @ 1630
Tubing	5.5"	2.875	6,858	NEW	P110 6.5 lb/ft	N/A	N/A
Packer type and depth set		N/A					

Comment Details ALL TOPHOLE DEPTHS ARE REFERENCED TO RKB = 12' GLE
PRODUCTION 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	462	16	1.14	527	0	8
Coal							
Intermediate 1	CLASS A	850	15.6	1.19	1012	0	8
Intermediate 2							
Intermediate 3							
Production	NEOCEM	1020 (LEAD) / 2565 (TAIL)	15	1.138 (LEAD) / 1.132 (TAIL)	1150 (LEAD) / 2904 (TAIL)	1630	8
Tubing							

Drillers TD (ft) 17258 Loggers TD (ft) 17258
Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
Plug back procedure N/A

Kick off depth (ft) 6398

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 _____
SURFACE: Centralize every 3rd joint from shoe to surface
INTERMEDIATE: Centralize every 3rd joint from shoe to surface
PRODUCTION: Centralize every joint from shoe to TOC

WAS WELL COMPLETED AS SHOT HOLE Yes No DETAILS _____

WAS WELL COMPLETED OPEN HOLE? Yes No DETAILS _____
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WERE TRACERS USED Yes No TYPE OF TRACER(S) USED _____
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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>MARCELLUS</u>	<u>6,525</u> TVD	<u>6,887</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 3038 psi Bottom Hole _____ psi DURATION OF TEST _____ hrs

OPEN FLOW Gas 2598.30 mcfpd Oil 12 bpd NGL 0 bpd Water 795 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	250	0	250	SANDSTONE / TRACES OF SILTSTONE & LIMESTONE & COAL
UNDIFFERENTIATED SILT	250	300	250	300	SILTSTONE/ TRACES OF SANDSTONE & COAL
UNDIFFERENTIATED SAND	300	400	300	400	SANDSTONE / TRACES OF SILTSTONE & LIMESTONE
UNDIFFERENTIATED SHALE	400	430	400	430	RED SHALE / TRACES OF SILTSTONE
WASHINGTON COAL	430	431	430	431	SANDSTONE/ RED SHALE/ COAL
UNDIFFERENTIATED SAND	431	480	431	480	SANDSTONE/ RED SHALE
UNDIFFERENTIATED SHALE	480	510	480	510	RED SHALE / TRACES OF SANDSTONE & GRAY SHALE
UNDIFFERENTIATED QUARTZ	510	580	510	580	QUARTZ / TRACES OF RED SHALE, SILTSTONE & SANDSTONE
WAYNESBURG COAL	580	582	580	582	QUARTZ / TRACES OF GRAY SHALE, QUARTZ, SILTSTONE & SANDSTONE
UNDIFFERENTIATED SAND	582	610	582	610	SANDSTONE / TRACES OF GRAY SHALE, QUARTZ & SILTSTONE
UNDIFFERENTIATED SILT	610	740	610	740	SILTSTONE / TRACES OF LIMESTONE & SANDSTONE
UNDIFFERENTIATED SAND	740	760	740	760	SANDSTONE / TRACES RED SHALE
UNDIFFERENTIATED SHALE	760	900	760	900	RED SHALE/ TRACES OF SILTSTONE, SANDSTONE, LIMESTONE
PITTSBURGH COAL	900	901	900	901	SANDSTONE/ COAL

Please insert additional pages as applicable.

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

Logging Company DIVERSIFIED WELL LOGGING LLC (MUDLOG)
Address 71 N. MAIN STREET City WASHINGTON State PA Zip 15301

Cementing Company SEE ATTACHMENT
Address _____ City _____ State _____ Zip _____

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 *Michael Honce* Title Superintendent Completions Date 11/20/2019

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

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SHR38HSM – PERFORATION RECORD – ATTACHMENT 1

Stage No.	Perforation Date	Perforation from MD ft.	Perforation to MD ft.	Number of Perforations	Formation(s)
1	8/21/2019	17,063.8	17,155.6	24	Marcellus Shale
2	8/23/2019	16,820.3	17,002.3	40	Marcellus Shale
3	8/23/2019	16,595.3	16,777.3	40	Marcellus Shale
4	8/23/2019	16,370.3	16,552.3	40	Marcellus Shale
5	8/23/2019	16,145.3	16,327.3	40	Marcellus Shale
6	8/23/2019	15,920.3	16,102.3	40	Marcellus Shale
7	8/24/2019	15,695.3	15,877.3	40	Marcellus Shale
8	8/24/2019	15,470.3	15,652.3	40	Marcellus Shale
9	8/24/2019	15,245.3	15,427.3	40	Marcellus Shale
10	8/24/2019	15,020.3	15,202.3	40	Marcellus Shale
11	8/24/2019	14,795.3	14,977.3	40	Marcellus Shale
12	8/24/2019	14,570.3	14,752.3	40	Marcellus Shale
13	8/25/2019	14,345.3	14,527.3	40	Marcellus Shale
14	8/25/2019	14,120.3	14,302.3	40	Marcellus Shale
15	8/25/2019	13,895.3	14,077.3	40	Marcellus Shale
16	8/25/2019	13,670.3	13,852.3	40	Marcellus Shale
17	8/25/2019	13,445.3	13,627.3	40	Marcellus Shale
18	8/25/2019	13,220.3	13,402.3	40	Marcellus Shale
19	8/26/2019	12,995.3	13,177.3	40	Marcellus Shale
20	8/26/2019	12,770.3	12,952.3	40	Marcellus Shale
21	8/26/2019	12,545.3	12,727.3	40	Marcellus Shale
22	8/26/2019	12,320.3	12,502.3	40	Marcellus Shale
23	8/26/2019	12,095.3	12,277.3	40	Marcellus Shale
24	8/26/2019	11,870.3	12,052.3	40	Marcellus Shale
25	8/27/2019	11,645.3	11,827.3	40	Marcellus Shale
26	8/27/2019	11,420.3	11,602.3	40	Marcellus Shale
27	8/27/2019	11,195.3	11,377.3	40	Marcellus Shale
28	8/27/2019	10,970.3	11,152.3	40	Marcellus Shale
29	8/27/2019	10,745.3	10,927.3	40	Marcellus Shale
30	8/27/2019	10,520.3	10,702.3	40	Marcellus Shale
31	8/28/2019	10,295.3	10,477.3	40	Marcellus Shale
32	8/28/2019	10,070.3	10,252.3	40	Marcellus Shale
33	8/28/2019	9,845.3	10,027.3	40	Marcellus Shale
34	8/28/2019	9,620.3	9,802.3	40	Marcellus Shale
35	8/28/2019	9,395.3	9,577.3	40	Marcellus Shale
36	8/28/2019	9,170.3	9,352.3	40	Marcellus Shale
37	8/29/2019	8,945.3	9,127.3	40	Marcellus Shale
38	8/29/2019	8,720.3	8,902.3	40	Marcellus Shale
39	8/29/2019	8,527.3	8,677.3	40	Marcellus Shale
40	8/29/2019	8,207.5	8,365.5	40	Marcellus Shale
41	8/30/2019	7,931.0	8,085.0	40	Marcellus Shale
42	8/30/2019	7,735.0	7,889.0	40	Marcellus Shale
43	8/30/2019	7,523.0	7,693.0	40	Marcellus Shale
44	8/30/2019	7,311.0	7,481.0	40	Marcellus Shale
45	8/30/2019	7,099.0	7,269.0	40	Marcellus Shale
46	8/30/2019	6,887.0	7,057.0	40	Marcellus Shale

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SHR38HSM – 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	8/22/2019	90	7,828.0	6,943.0	4,020.0	397,200.0	7,657.02	N/A
2	8/23/2019	98	8,804.0	7,078.0	4,208.0	397,973.0	7,298.00	N/A
3	8/23/2019	98	8,910.0	6,681.0	3,994.0	402,372.0	7,214.00	N/A
4	8/23/2019	96	8,618.0	6,582.0	3,662.0	405,479.0	6,879.00	N/A
5	8/23/2019	90	8,301.0	6,042.0	3,750.0	382,695.0	6,743.00	N/A
6	8/23/2019	96	8,461.0	6,753.0	4,270.0	378,693.0	6,342.00	N/A
7	8/24/2019	89	8,056.0	6,343.0	3,808.0	398,563.0	6,462.00	N/A
8	8/24/2019	99	8,807.0	6,106.0	3,523.0	396,943.0	6,300.00	N/A
9	8/24/2019	99	9,142.0	5,888.0	3,245.0	397,457.0	6,250.00	N/A
10	8/24/2019	99	8,577.0	5,127.0	3,915.0	397,038.0	6,087.00	N/A
11	8/24/2019	95	8,237.0	5,804.0	3,679.0	402,953.0	6,386.98	N/A
12	8/24/2019	95	8,038.0	4,873.0	4,280.0	396,581.0	6,299.00	N/A
13	8/25/2019	96	8,144.0	6,117.0	3,701.0	404,876.0	6,386.98	N/A
14	8/25/2019	99	8,405.0	5,444.0	3,653.0	390,900.0	6,187.00	N/A
15	8/25/2019	98	8,259.0	4,722.0	3,771.0	385,225.0	5,846.00	N/A
16	8/25/2019	97	8,528.0	5,467.0	3,495.0	383,161.0	5,796.00	N/A
17	8/25/2019	99	8,099.0	5,420.0	4,004.0	407,006.0	5,901.95	N/A
18	8/25/2019	99	8,113.0	5,389.0	4,489.0	399,358.0	5,724.00	N/A
19	8/26/2019	98	7,984.0	4,784.0	4,507.0	400,875.0	5,817.00	N/A
20	8/26/2019	99	8,512.0	5,409.0	4,062.0	402,765.0	5,767.00	N/A
21	8/26/2019	100	8,465.0	5,545.0	4,827.0	399,195.0	5,639.00	N/A
22	8/26/2019	100	8,254.0	5,389.0	4,336.0	396,202.0	5,642.00	N/A
23	8/26/2019	94	7,992.0	5,396.0	3,925.0	386,239.0	5,798.00	N/A
24	8/26/2019	98	8,075.0	5,006.0	3,958.0	399,808.0	5,951.02	N/A
25	8/27/2019	100	8,138.0	4,471.0	3,839.0	403,541.0	5,846.00	N/A
26	8/27/2019	100	8,026.0	4,432.0	3,882.0	405,206.0	5,876.00	N/A
27	8/27/2019	98	8,166.0	5,391.0	4,192.0	396,031.0	5,951.00	N/A
28	8/27/2019	97	7,449.0	4,916.0	4,600.0	397,520.0	6,457.00	N/A
29	8/27/2019	96	7,282.0	4,366.0	4,280.0	394,687.0	5,649.05	N/A
30	8/27/2019	96	7,244.0	5,821.0	3,699.0	395,575.0	5,668.00	N/A
31	8/28/2019	96	7,205.0	5,625.0	3,604.0	400,612.0	5,686.98	N/A
32	8/28/2019	100	7,906.0	5,238.0	3,669.0	403,055.0	5,790.98	N/A
33	8/28/2019	100	7,846.0	5,902.0	3,929.0	405,753.0	6,304.00	N/A
34	8/28/2019	100	7,666.0	5,020.0	3,420.0	399,930.0	5,888.00	N/A
35	8/28/2019	99	7,432.0	4,688.0	3,274.0	402,692.0	5,612.00	N/A
36	8/29/2019	99	7,715.0	5,885.0	3,373.0	393,087.0	5,503.98	N/A
37	8/29/2019	98	7,704.0	6,615.0	3,505.0	396,013.0	5,570.00	N/A
38	8/29/2019	99	7,564.0	5,156.0	3,684.0	401,371.0	5,535.00	N/A
39	8/29/2019	98	7,647.0	5,277.0	4,494.0	401,941.0	5,749.00	N/A
40	8/29/2019	100	7,445.0	5,555.0	3,385.0	396,538.0	5,569.00	N/A
41	8/29/2019	100	7,754.0	5,665.0	3,448.0	399,194.0	5,545.02	N/A
42	8/30/2019	100	7,737.0	5,430.0	3,631.0	408,579.0	5,686.00	N/A
43	8/30/2019	98	7,626.0	6,001.0	3,956.0	394,516.0	5,448.00	N/A
44	8/30/2019	97	7,552.0	5,494.0	3,634.0	403,024.0	5,521.02	N/A
45	8/30/2019	98	7,312.0	4,999.0	4,060.0	395,594.0	5,423.00	N/A
46	8/30/2019	99	7,484.0	5,226.0	3,250.0	412,795.0	5,940.00	N/A

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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)
UNDIFFERENTIATED SAND	901	940	901	940	SANDSTONE / TRACES OF GRAY SHALE, LIMESTONE & SILTSTONE
UNDIFFERENTIATED SHALE	940	980	940	980	RED SHALE / TRACES OF LIMESTONE & SANDSTONE
UNDIFFERENTIATED SAND	980	1000	980	1000	SANDSTONE / TRACES OF RED SHALE
UNDIFFERENTIATED SHALE	1000	1040	1000	1040	GRAY SHALE / TRACES OF LIMESTONE, SILTSTONE & SANDSTONE
UNDIFFERENTIATED SAND	1040	1060	1040	1060	SANDSTONE / SILTSTONE
UNDIFFERENTIATED QUARTZ	1060	1100	1060	1100	QUARTZ / TRACES OF SANDSTONE & SILTSTONE
UNDIFFERENTIATED LIME	1100	1120	1100	1120	LIMESTONE / TRACES OF SANDSTONE & SILTSTONE
UNDIFFERENTIATED SAND	1120	1160	1120	1160	SANDSTONE / SILTSTONE
UNDIFFERENTIATED SILT	1160	1280	1160	1280	SILTSTONE / TRACES OF SANDSTONE & LIMESTONE
UNDIFFERENTIATED QUARTZ	1280	1320	1280	1320	QUARTZ
UNDIFFERENTIATED SILT	1320	1340	1320	1340	SILTSTONE / TRACES OF SANDSTONE
UNDIFFERENTIATED QUARTZ	1340	1380	1340	1380	QUARTZ / TRACES OF SILTSTONE & SANDSTONE
UPPER KITANNING	1380	1480	1380	1480	QUARTZ & SILTSTONE / TRACES OF SANDSTONE & COAL
LOWER KITANNING	1480	1840	1480	1840	SANDSTONE & SILTSTONE / TRACES OF QUARTZ & COAL
BIG LIME	1840	1920	1840	1920	LIMESTONE / TRACES OF SILTSTONE
BIG INJUN	1920	2060	1920	2060	SANDSTONE & LIMESTONE / TRACES OF SILTSTONE
PRICE	2060	2210	2060	2210	SILTSTONE / TRACES OF RED SHALE
WEIR	2210	2360	2210	2360	SANDSTONE & SILTSTONE / TRACES OF LIMESTONE
BEREA	2360	2540	2360	2540	SILTSTONE
GORDON	2540	3350			SILTSTONE / TRACES OF SANDSTONE & PYRITE
WARREN SAND	3350	4940			SILTSTONE & SANDSTONE
BENSON	4940	5150			SILTSTONE & SANDSTONE
ALEXANDER	5150	6302			SILTSTONE / TRACES OF GRAY SHALE
MIDDLESEX	6302	6371			GRAY SHALE / TRACES OF SILTSTONE
WEST RIVER	6371	6445			GRAY SHALE
BURKET	6445	6481	6750	6491	GRAY SHALE
TULLY	6481	6503	6817	6508	GRAY SHALE
HAMILTON	6503	6517	6851	6523	GRAY SHALE & LIMESTONE
UPPER MARCELLUS	6517	6537	6886	6534	GRAY SHALE
MIDDLE MARCELLUS	6537		6946	6554	GRAY SHALE
TD - MARCELLUS				17258	

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DRILLING CONTRACTOR

TOPHOLE

DECKER DRILLING, INC
11565 OH-676
VINCENT, OH 45784

KOP to TD

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

CEMENTING COMPANY

TOPHOLE

UNIVERSAL PUMPING PRESSURE
2198 UNIVERSITY DRIVE
LEMONT FURNACE, PA 15456

PRODUCTION

HALLIBURTON
121 CHAMPION WAY SUITE #210
CANONSBURG, PA 15317

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	8/22/2019
Job End Date:	8/30/2019
State:	West Virginia
County:	Tyler
API Number:	47-095-02572-00-00
Operator Name:	CNX Gas Company LLC
Well Name and Number:	SHR38HHSM
Latitude:	39.37136100
Longitude:	-80.83518400
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,567
Total Base Water Volume (gal):	12,200,244
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
Water	CNX	Carrier/Base Fluid	Water	7732-18-5	100.00000	84.20011	None
Sand (Proppant)	Keane	Proppant	Crystalline silica: Quartz (SiO2)	14808-60-7	100.00000	15.18307	None
Hydrochloric Acid (7.5%)	Keane	Acid Inhibitor	Water	7732-18-5	92.50000	0.47443	None
			Hydrochloric Acid	7647-01-0	7.50000	0.03847	None
KFR-48	Keane	Friction Reducer	Water	7732-18-5	47.00000	0.02790	None
			alkanes, C16-20-iso-	90622-59-6	25.00000	0.01484	None
			butene, homopolymer	9003-29-6	25.00000	0.01484	None
			Alcohols, C12-18, ethoxylated	68213-23-0	3.00000	0.00178	None
KSI-22	Keane	Scale Inhibitor	Methanol	67-56-1	50.00000	0.00977	None
			2-propanoic acid, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propensulfonic acid monosodium salt and sodium phosphinite	110224-99-2	10.00000	0.00195	None

MBC-516	Keane	Biocide	glutaral	111-30-8	26.70000	0.00399	None
			didecylmethylammonium chloride	7173-51-5	8.00000	0.00119	None
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.30000	0.00079	None
			Ethanol	64-17-5	2.80000	0.00042	None
KWG-111LS	Keane	Gel	Guar gum	9000-30-0	55.00000	0.00188	None
			Distillates (petroleum), hydrotreated light	64742-47-8	55.00000	0.00188	None
XFEAC-30	Keane	Iron Control	acetic acid	64-19-7	60.00000	0.00200	None
			Citric acid	77-92-9	40.00000	0.00133	None
XAI-12	Keane	Acid Inhibitor	Methanol	67-56-1	90.00000	0.00148	None
			prop-2-yn-1-ol	107-19-7	5.00000	0.00008	None
			xylene	1330-20-7	5.00000	0.00008	None
			Fatty imidazoline	61790-69-0	5.00000	0.00008	None
			Alcohols, C7-9-iso-, C8-rich	68526-83-0	5.00000	0.00008	None
			isopropyl alcohol	67-63-0	5.00000	0.00008	None
			ethylbenzene	100-41-4	1.00000	0.00002	None
Chemiliquid 250	Keane	pH Buffer	water	7732-18-5	75.00000	0.00124	None
			sodium hydroxide	1310-73-2	25.00000	0.00041	None
KWBO-2	Keane	Breaker	Sodium persulfate	7775-27-1	99.00000	0.00004	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	0.47443	
			alkanes, C16-20-iso-	90622-59-6	25.00000	0.01484	
			butene, homopolymer	9003-29-6	25.00000	0.01484	
			2-propenoic acid, polymer with 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propensulfonic acid monosodium salt and sodium phosphinite	110224-99-2	10.00000	0.00195	
			Distillates (petroleum), hydrotreated light	64742-47-8	55.00000	0.00188	
			Alcohols, C12-18, ethoxylated	68213-23-0	3.00000	0.00178	
			Citric acid	77-92-9	40.00000	0.00133	
			water	7732-18-5	75.00000	0.00124	
			didecylmethylammonium chloride	7173-51-5	8.00000	0.00119	
			quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	68424-85-1	5.30000	0.00079	

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WV Department of
Environmental Protection

			Ethanol	64-17-5	2.80000	0.00042
			Alcohols, C7-9-iso-, C8-rich	68526-83-0	5.00000	0.00008
			Fatty imidazoline	61790-69-0	5.00000	0.00008
			soproyl alcohol	67-63-0	5.00000	0.00008
			prop-2-yn-1-ol	107-19-7	5.00000	0.00008
			xylene	1330-20-7	5.00000	0.00008
			ethylbenzene	100-41-4	1.00000	0.00002
			Water	7732-18-5	85.00000	

* 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)

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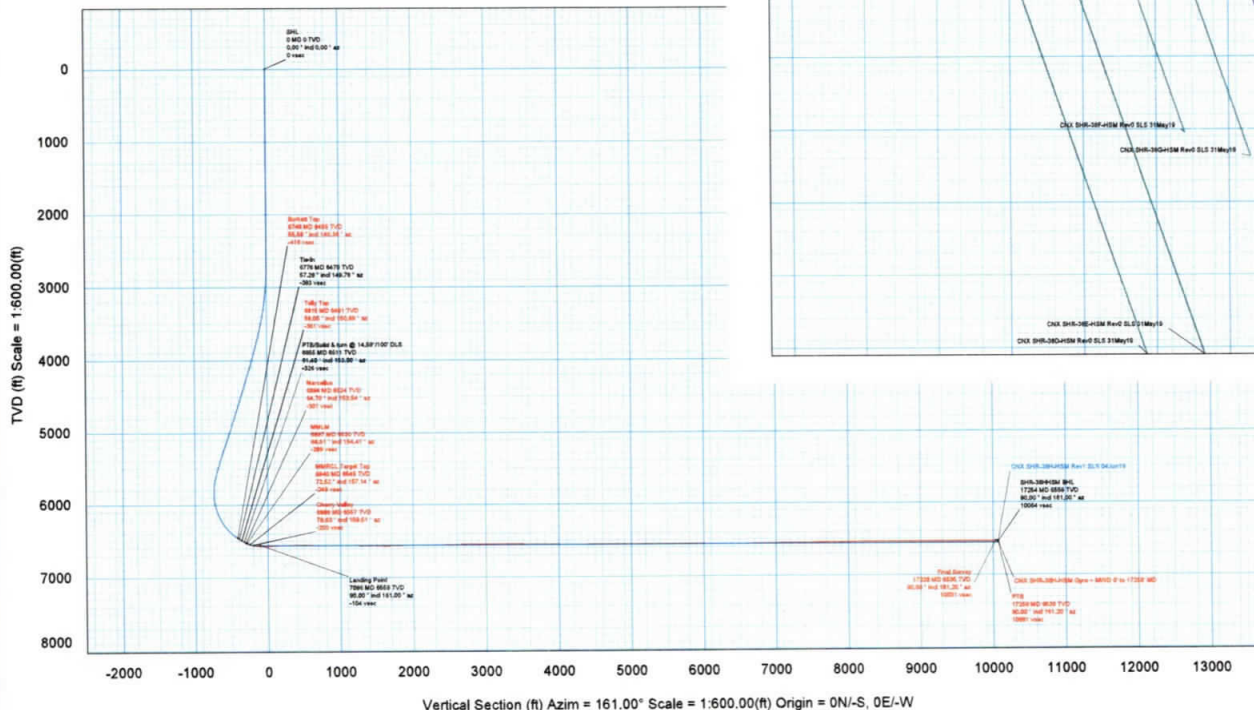
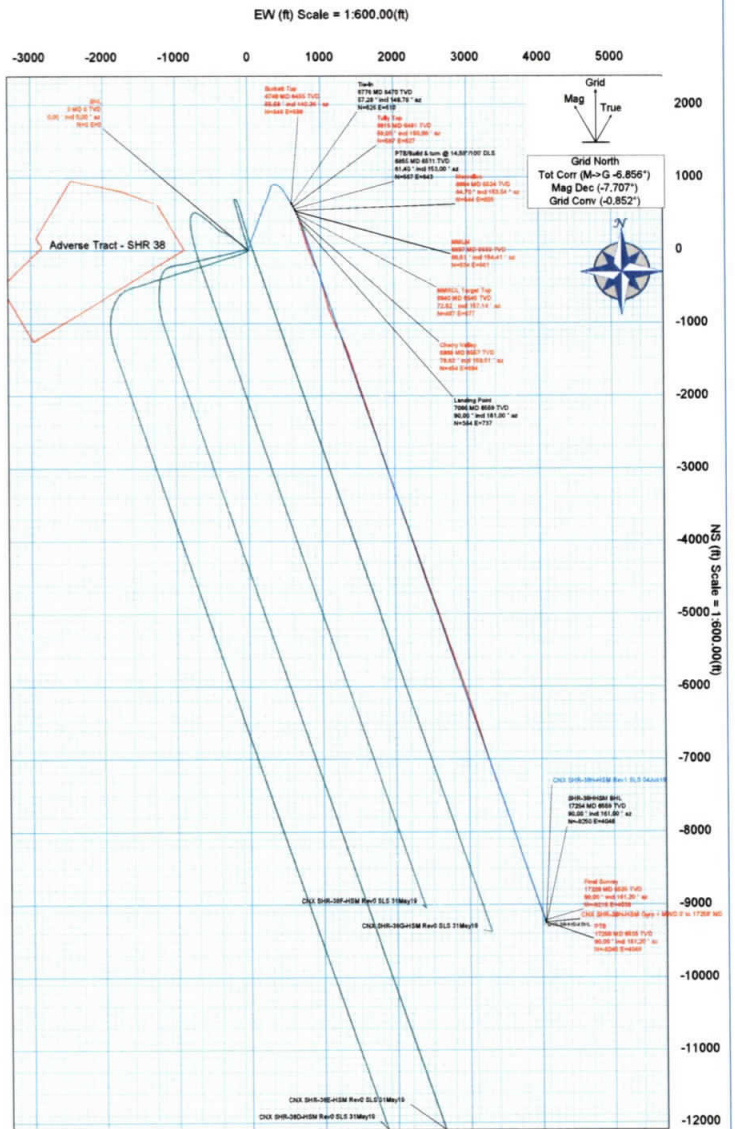
WV Department of
Environmental Protection

Borehole: Original Borehole	Well: SHR-38H-HSM	Field: WV Tyler County (NAD 27)	Structure: Patterson 801
Gravity & Magnetic Parameters		Surface Location	
Model: HDGM 2019 MagDec: -7.07°	Dip: 66.467° FS: 61821.478mT Date: 30-May-2019 Gravity FS: 999.321mgm (8.80666 Based)	NAD27 West Virginia State Plane, Northern Zone, US Feet Lat: N 39 22 16.61 Lon: W 80 50 7.28	Miscellaneous Shot: SHR-38H-HSM TVD Ref: RKB(1040.669 above MSL) Plan: CNX SHR-38H-HSM Gyro + MWD 0' to 17250' MD

Critical Points							
Point Name	MD	RCL	AZM	TVD	VSEC	N(99H)	E(99H)
BHL	1200	63.00	63.00	63.00	63.00	63.00	63.00
Surface Top	6194.00	61.00	145.30	6454.96	-418.20	645.71	199.49
Tubg Top	6615.00	66.00	150.00	6491.02	-360.83	647.43	424.75
Navelink	6894.00	64.70	153.54	6534.34	-301.24	644.25	695.34
MSLN	6997.00	66.51	154.41	6529.71	-289.49	633.61	665.53
MWDCL Target Top	6940.00	72.53	157.44	6544.75	-249.40	490.89	677.03
Cherry Valley	6994.00	78.83	158.61	6554.54	-252.87	453.67	644.14
Final Survey	17258.00	80.00	161.20	6534.63	-1030.79	-8217.88	4538.43
PTB	17268.00	80.00	161.20	6534.63	-1030.79	-8248.29	4543.09

PART	Seq	Survey Tool	Survey Tool Code	Version/Tool	Min. Size	Coating Min.	Expected	MD From	MD To	Survey Frequency	MD (ft)	MD (m)	Comments
1	1	NAL_MWD-HSM-Dyn	Only	30	30			0	28	1584.25	1.25	1.25	
1	2	NAL_MWD-HSM-Dyn	Only	30	30			29	29	1584.25	1.25	1.25	
1	3	NAL_MWD-HSM-Dyn	Only	30	30			29	29	1584.25	1.25	1.25	
1	4	NAL_MWD-HSM-Dyn	Only	30	30			29	29	1584.25	1.25	1.25	
1	5	NAL_MWD-HSM-Dyn	Only	30	30			29	29	1584.25	1.25	1.25	

Surface Location							
Target Name	Shape	Dimension	Latitude	Longitude	Heighting	TVD	VSec
Adverse Tract - SHR 38	Point	N/A	N 39 24 52.89	W 80 50 45.75	238009.76	181933.13	1546.85
SHR-38H-HSM BHL	Point	N/A	N 39 20 45.79	W 80 49 14.01	210044.67	162954.95	859.00
SHR-38H-HSM LP	Point	N/A	N 39 22 18.66	W 80 49 17.64	220443.71	162256.96	859.00



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WV Department of
Environmental Protection

- CNX SHR-38H-HSM Gyro + MWD 0' to 17250' MD
- CNX SHR-38H-HSM Rev1 SLS 04Jun19
- CNX SHR-38H-HSM Rev0 SLS 31May19
- CNX SHR-38H-HSM Rev0 SLS 31May19
- CNX SHR-38H-HSM Rev0 SLS 31May19
- CNX SHR-38H-HSM Rev0 SLS 31May19
- CNX SHR-38H-HSM Rev0 SLS 31May19
- Adverse Tract - SHR 38
- SHR-38H-HSM BHL
- SHR-38H-HSM LP

CONTROLLED

Plan no. _____
 Drawing no. _____
 Date: 10-Jun-2019
 Drawn By: _____
 Checked By: _____

CNX SHR-38H-HSM Gyro + MWD 0' to 17258' MD Survey Geodetic Report

(Def Survey)

Report Date: July 15, 2019 - 02:32 PM
Client: CNX Gas
Structure: WV Tyler County (NAD 27)
Borehole: CNX SHR-38 Pad / SHR-38H-HSM
Well: SHR-38H-HSM
Original Borehole: CNX SHR-38 Pad / SHR-38H-HSM
UWI / APN: Unknown / Unknown
Survey Name: CNX SHR-38H-HSM Gyro + MWD 0' to 17258' MD
Survey Date: May 30, 2019
Tie / AMD / DD / EIR / ERD Ratio: 291.345 7' / 11847.848 R / 0.642 1' / 2.024

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 161.000 (Grid North)
Vertical Section Origin: 0.000 R, 0.000 R
TVD Reference Datum: RKB
TVD Reference Elevation: 1040.650 R above MSL
Geoid / Ground Elevation: 1011.050 R above MSL
Magnetic Declination: -7.707 *
Total Gravity Field Strength: 960.3213mg (6.80005 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 5161.479 nT
Magnetic Dip Angle: 90.451 *
Declination Date: May 30, 2019
Magnetic Declination Model: HDGM 2010
North Reference: Grid North
Grid Convergence Used: -0.8517 *
Total Corr Mag North-Grid North: -8.5657 *
Local Coord Referenced To: W ell Head

Table with columns: Comments, MD, Incl, Azim Grid, TVD, TVDSS, VSEC, NS, EW, DLS, TF, BR, TR, Northing, Easting, Latitude, Longitude, Directional. Contains detailed survey data for well SHR-38H-HSM.

LINE	BEARING	DISTANCE
R1	S 33°14'26" E	139.71'
R2	S 46°32'47" E	162.81'
R3	S 65°19'03" E	134.64'
R4	N 71°29'16" W	1144.34'
R5	S 57°37'41" W	789.15'
R6	S 43°06'47" E	949.64'

BHL is located on topo map 10,513 feet south of Latitude: 39° 22' 30"
 SHL is located on topo map 1,325 feet south of Latitude: 39° 22' 30"

AS DRILLED PLAT

NOTES:

1. There are no water wells or developed springs within 250' of proposed well.
2. There are no existing buildings within 625' of proposed well.
3. Proposed well is greater than 100' from perennial stream, wetland, pond, reservoir or lake.
4. There are no native trout streams within 300' of proposed well.
5. Proposed well is greater than 1000' from surface/groundwater intake or public water supply.
6. 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.

AS-DRILLED SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83
 N:4358001.17
 E:514196.82
 NAD83, WV NORTH
 N:320178.409
 E:1591055.835
 LAT/LON DATUM-NAD83
 LAT:39°22'16.899"
 LON:80°50'06.662"

PERMITTED SURFACE HOLE LOCATION (SHL)
 UTM 17-NAD83
 N:4358001.17
 E:514196.82
 NAD83, WV NORTH
 N:320178.409
 E:1591055.835
 LAT/LON DATUM-NAD83
 LAT:39°22'16.899"
 LON:80°50'06.662"

PERMITTED APPROX. LANDING POINT
 UTM 17-NAD83
 N:4358096.53
 E:514426.82
 NAD83, WV NORTH
 N:320478.716
 E:1591815.799
 LAT/LON DATUM-NAD83
 LAT:39°22'19.979"
 LON:80°49'57.042"

AS-DRILLED APPROX. LANDING POINT
 UTM 17-NAD83
 N:4358096.53
 E:514426.82
 NAD83, WV NORTH
 N:320478.716
 E:1591815.799
 LAT/LON DATUM-NAD83
 LAT:39°22'19.979"
 LON:80°49'57.042"

PERMITTED BOTTOM HOLE LOCATION (BHL)
 UTM 17-NAD83
 N:4355204.13
 E:515477.05
 NAD83, WV NORTH
 N:310929.744
 E:1595103.775
 LAT/LON DATUM-NAD83
 LAT:39°20'45.947"
 LON:80°49'13.047"

LEGEND

- TOPO MAP POINT
- WELL
- ALL ARE POINTS UNLESS OTHERWISE NOTED.
- LEASE NUMBER
- MINERAL TRACT BOUNDARY
- PARCEL LINES
- LEASE BOUNDARY
- WELL REFERENCE
- PROPOSED HORIZONTAL WELL
- AS-DRILLED
- ROAD
- STREAM CENTER LINE
- GAS WELLS**
- EXISTING WELLS
- PLUGGED WELLS
- ABANDON WELLS

THRASHER

CIVIL, ENVIRONMENTAL, CONSULTING, FIELD SERVICES
 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26332
 PHONE: (304) 824-1084 FAX: (304) 824-7821

SEE PAGE 2 & 3 FOR SURFACE OWNERS AND LESSORS

FILE #: SHR 38 HHSM-AS DRILLED
 DRAWING #: SHR 38 HHSM-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 A. 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 #: SHR 38 HHSM-AS DRILLED
 API WELL #: 47 95 02572
 STATE COUNTY PERMIT

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

WATERSHED: HEADWATERS MIDDLE ISLAND CREEK ELEVATION: 1012±
 COUNTY/DISTRICT: TYLER / CENTERVILLE QUADRANGLE: WEST UNION, WV 7.5'
 SURFACE OWNER: JAMES E. ASH ET AL ACREAGE: 111±
 OIL & GAS ROYALTY OWNER: JAMES E. ASH ET AL ACREAGE: 702.114±

DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
 PLUG OFF OLD FORMATION PERFORATE NEW FORMATION PLUG & ABANDON
 CLEAN OUT & REPLUG OTHER CHANGE (SPECIFY): _____

TARGET FORMATION: MARCELLUS ESTIMATED DEPTH: TVD: 6,480± TMD: 17,168±
 WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT CHRIS TURNER
 Address 1000 CONSOL ENERGY DRIVE Address 1 DOMINION DR.
 City CANONSBURG State PA Zip Code 15317 City JANE LEW State WV Zip Code 26378

BHL is located on topo map 8,122 feet west of Longitude: 80° 47' 30"
 SHL is located on topo map 523 feet west of Longitude: 80° 50' 00"

SHR 38 HHSM

PAGE 2 OF 3

AS DRILLED PLAT

	SURFACE OWNER	LESSOR	DIST-TM/PAR
1	JAMES E. ASH ET AL	VERNA O. ASH, JAMES E. ASH AND THELMA B. ASH, BESSIE HAUGHT AND HAROLD WARNER ERNEST G. SECKMAN AND O. JOANNE SECKMAN RALPH E. PHILLIPS AND VELINDA PHILLIPS H/W	P/O 1-16/19
2	JAMES E. ASH ET AL	VERNA O. ASH, JAMES E. ASH AND THELMA B. ASH, BESSIE HAUGHT AND HAROLD WARNER ERNEST G. SECKMAN AND O. JOANNE SECKMAN RALPH E. PHILLIPS AND VELINDA PHILLIPS H/W MARTHA SUE MUZIO, F/K/A MARTHA SUE LOCOCO MARY LYNNE SLATTERY, F/K/A MARY LYNNE LOCOCO RITA G. JARVIS JO ELLEN HARPER DAY WILLIAM PAUL HARPER MARION R. BACHELOR AND GLORIA JEAN BACHELOR, H/W BERDINA ROSE AND NORMAN W. ROSE, W/H DAVID PAUL LOCOCO ELIZABETH FLORENCE LOCOCO MARY LEE LILLY MICHELLE LOCOCO BUSHMIRE, F/K/A MICHELLE LUCRETIA BUSHMIRE DONALD VINCENT LOCOCO MARGO KIEHL JOHN MICHAEL LEONIAN JOHN FULTON LEONIAN JEFFREY TODD HEFLIN JASON S. HEFLIN AND JESSICA L. HEFLIN, H/W NILA ASH SAYLOR REVOCABLE TRUST, BY JOSEPH F. SILEX, JR., TRUSTEE PHILLIP LEONIAN, A/K/A PHILLIP MARSHALL LEONIAN ROBERT LEONIAN A/K/A JOSEPH ROBERT LEONIAN BAILEY ANN MILLS ARMEN LEONIAN, A/K/A ARMEN LANHAM LEONIAN THERESA LEE ROBERTSON ROSE MARIE VANHEUVLEN COMMONWEALTH ENERGY, INC. A/K/A COMMONWEALTH ENERGY	P/O 1-16/19
3	JOHN R. ANDERS II	MARTHA SUE MUZIO, F/K/A MARTHA SUE LOCOCO MARY LYNNE SLATTERY, F/K/A MARY LYNNE LOCOCO RITA G. JARVIS JO ELLEN HARPER DAY WILLIAM PAUL HARPER MARION R. BACHELOR AND GLORIA JEAN BACHELOR, H/W BERDINA ROSE AND NORMAN W. ROSE, W/H DAVID PAUL LOCOCO ELIZABETH FLORENCE LOCOCO MARY LEE LILLY MICHELLE LOCOCO BUSHMIRE, F/K/A MICHELLE LUCRETIA BUSHMIRE DONALD VINCENT LOCOCO MARGO KIEHL JOHN MICHAEL LEONIAN JOHN FULTON LEONIAN JASON S. HEFLIN AND JESSICA L. HEFLIN, H/W NILA ASH SAYLOR REVOCABLE TRUST, BY JOSEPH F. SILEX, JR., TRUSTEE PHILLIP LEONIAN, A/K/A PHILLIP MARSHALL LEONIAN JUDITH ROSANNE WIGAL AND JAMES R. WIGAL, W/H ROBERT LEONIAN A/K/A JOSEPH ROBERT LEONIAN BAILEY ANN MILLS ARMEN LEONIAN, A/K/A ARMEN LANHAM LEONIAN DONALD L. HEADLEY THERESA LEE ROBERTSON JAMES MATTERN AND LINDA K. MATTERN, H/W ROSE MARIE VANHEUVLEN COMMONWEALTH ENERGY, INC. A/K/A COMMONWEALTH ENERGY JOHN R. ANDERS WILLIAM H. ASH AND NANCY M. ASH, H/W, ET AL	1-16/21.1
4	RICHARD H. METCALF JOHN R. ANDERS II	JOHN MICHAEL LEONIAN JOSEPH ROBERT LEONIAN MARGO L. KIEHL AND CHARLES F. KIEHL, W/H BERDINA ROSE AND NORMAN W. ROSE, W/H PHILLIP LEONIAN, A/K/A PHILLIP MARSHALL LEONIAN MARION RAY BACHELOR, AKA MARION R. BACHELOR AND GLORIA JEAN BACHELOR RITA G. JARVIS MIKE ROSS, INC. I. L. MORRIS JO ELLEN HARPER DAY MARY LEE LILLY ARMEN LEONIAN, AKA ARMEN LEANHAM LEONIAN JOHN FULTON LEONIAN NILA ASH SAYLOR REVOCABLE TRUST, BY JOSEPH F. SILEX, JR. BAILEY ANN MILLS WILLIAM PAUL HARPER DAVID PAUL LOCOCO MARY LYNNE SLATTERY, FKA MARY LYNNE LOCOCO DONALD VINCENT LOCOCO ROSE MARIE VANHEUVLEN THERESA LEE ROBERTSON MARTHA SUE MUZIO, F/K/A MARTHA SUE LOCOCO MICHELLE LOCOCO BUSHMIRE, FKA MICHELLE LUCRETIA BUSHMIRE ELIZABETH FLORENCE LOCOCO RALPH E. PHILLIPS AND VELINDA PHILLIPS, H/W BRC APPALACHAIN MINERALS I, LLC BRC APPALACHAIN MINERALS I, LLC	1-16/17 & 1-16/21 1-16/17 & 1-16/21
5	RICHARD H. METCALF JOHN R. ANDERS II	JOHN MICHAEL LEONIAN JOSEPH ROBERT LEONIAN MARGO L. KIEHL AND CHARLES F. KIEHL, W/H BERDINA ROSE AND NORMAN W. ROSE, W/H PHILLIP LEONIAN, A/K/A PHILLIP MARSHALL LEONIAN MARION RAY BACHELOR, AKA MARION R. BACHELOR AND GLORIA JEAN BACHELOR RITA G. JARVIS MIKE ROSS, INC. I. L. MORRIS JO ELLEN HARPER DAY MARY LEE LILLY ARMEN LEONIAN, AKA ARMEN LEANHAM LEONIAN JOHN FULTON LEONIAN NILA ASH SAYLOR REVOCABLE TRUST, BY JOSEPH F. SILEX, JR. BAILEY ANN MILLS WILLIAM PAUL HARPER DAVID PAUL LOCOCO MARY LYNNE SLATTERY, FKA MARY LYNNE LOCOCO DONALD VINCENT LOCOCO ROSE MARIE VANHEUVLEN THERESA LEE ROBERTSON MARTHA SUE MUZIO, F/K/A MARTHA SUE LOCOCO MICHELLE LOCOCO BUSHMIRE, FKA MICHELLE LUCRETIA BUSHMIRE ELIZABETH FLORENCE LOCOCO RALPH E. PHILLIPS AND VELINDA PHILLIPS, H/W BRC APPALACHAIN MINERALS I, LLC BRC APPALACHAIN MINERALS I, LLC	1-16/17 & 1-16/21

AS-DRILLED
SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
N:4358001.17
E:514196.82
NAD83, WV NORTH
N:320178.409
E:1591055.835
LAT/LON DATUM-NAD83
LAT:39°22'16.899"
LON:80°50'06.662"

AS-DRILLED
APPROX. LANDING POINT

UTM 17-NAD83
N:4358094.95
E:514422.48
N:320473.778
E:1591801.4593
LAT:39°22'19.928"
LON:80°49'57.224"

AS-DRILLED
BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83
N:4355205.03
E:515477.32
NAD83, WV NORTH
N:310932.684
E:1595104.700
LAT/LON DATUM-NAD83
LAT:39°20'46.117"
LON:80°49'13.378"

PERMITTED
SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
N:4358001.17
E:514196.82
NAD83, WV NORTH
N:320178.409
E:1591055.835
LAT/LON DATUM-NAD83
LAT:39°22'16.899"
LON:80°50'06.662"

PERMITTED
APPROX. LANDING POINT

UTM 17-NAD83
N:4358096.53
E:514426.82
NAD83, WV NORTH
N:320478.716
E:1591815.799
LAT/LON DATUM-NAD83
LAT:39°22'19.979"
LON:80°49'57.042"

PERMITTED
BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83
N:4355204.13
E:515477.05
NAD83, WV NORTH
N:310929.744
E:1595103.775
LAT/LON DATUM-NAD83
LAT:39°20'45.947"
LON:80°49'13.047"

API WELL #: 47 95 02572

STATE COUNTY PERMIT



CIVIL • ENVIRONMENTAL • CONSULTING • FIELD SERVICES
800 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330
PHONE (304) 624-1084 FAX (304) 624-7831

JULY 22, 2019

SHR 38 HHSM

PAGE 3 OF 3

AS DRILLED PLAT

	SURFACE OWNER	LESSOR	DIST-TM/PAR
6	CHRIS BAUM & LYNN K. HERSTINE JR.	ORA E. PRATT AND IRENE PRATT, H/W, THURMAN PRATT AND ANNA PRATT, H/W BELUAH C. CAYTON AND ASHBY CAYTON	1-16/23
7	D. RALPH THACKER & CARLISLE J. MAURICE JR.	CHARLES W. HENDERSON AND DOROTHY M. HENDERSON, H/W AND CHARLES W. HENDERSON, POWER OF ATTORNEY FOR THE A. I. DOAK HEIRS JOHN A. CONKLIN AND JEAN CONKLIN, H/W GEORGE B. CONKLIN AND BETTY M. CONKLIN, H/W BETTY L. CONKLIN ROBERT LEE REED LEWIS H. REED AND CAROL J. REED, H/W KATHY PRANGER VIRGINIA O'REAR AND RALPH O'REAR, W/H ROBERT H. MELVIN BETTY L. MELVIN MARY S. LARTZ AND WILLIAM LARTZ, W/H LILLIAN CRABILL AND WILLIAM CRABILL, W/H MELISSA COLL ROBERT BARTHOLOMEW AND BARBARA BARTHOLOMEW, H/W PHILLIP L. MELVIN JOANNE GREENMAN AND GERALD GREENMAN, H/W	1-16/26
8	PEARLIE DAVIS	LINDA C. BRITTON STEVEN BRITTON ALFRED BRITTON, ET AL BRIAN BRITTON, AKA, BRYAN L. BRITTON AND ANNETTE BRITTON, H/W	1-16/25
9	STEVEN E. MALICKI JR. FRED M. DOTSON JR. KAREN DOTSON KEVIN DOTSON	PAUL W. HYLBERT AND CHARLOTTE J. HYLBERT, H/W	1-18/1
10	STEVEN E. MALICKI JR.		1-18/1.1
11	ELIZABETH C. FISHBECK	CLARENCE W. HYLBERT AND CHRISTINE HYLBERT, H/W	1-18/4
12	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	WEST VIRGINIA DIVISION OF NATURAL RESOURCES	N/A
13	RALPH P. MCCUTCHAN & SHEILA R. CHIPPS	MARY M. WELCH	1-18/17
14	STEVEN R. & SHAWNA LEA	MRS. BELVA WLCH CLARENCE W. MUTSCHELKNAUS, SR. AND CLARENCE W. MUTSCHELKNAUS, JR. INDIVIDUALLY AND CLARENCE W. MUTSCHELKNAUS, SR. AND CLARENCE W. ALLEN E. SMITH A/K/A ALLEN SMITH DONALD C. KESTERSON ROSEMARY HAUGHT KENNETH R. MASON AND JENNIFER L. MASON, H/W ESTELLA GOODFELLOW	
15	RALPH MCCUTCHAN II CHIPPS REVOCABLE LIVING TRUST 2004	PAUL STRICKLING EARL STRICKLING AND RUTH G. STRICKLING, H/W JOSIE L. STRICKLING JOHN B. STRICKLING, JR. AND PEGGY STRICKLING, H/W	8-3/3

AS-DRILLED
SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
N:4358001.17
E:514196.82
NAD83, WV NORTH
N:320178.409
E:1591055.835
LAT/LON DATUM-NAD83
LAT:39°22'16.899"
LON:80°50'06.662"

AS-DRILLED
APPROX. LANDING POINT

UTM 17-NAD83
N:4358094.95
E:514422.48
N:320473.778
E:1591801.4593
LAT:39°22'19.928"
LON:80°49'57.224"

AS-DRILLED
BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83
N:4355205.03
E:515477.32
NAD83, WV NORTH
N:310932.684
E:1595104.700
LAT/LON DATUM-NAD83
LAT:39°20'46.117"
LON:80°49'13.378"

PERMITTED
SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83
N:4358001.17
E:514196.82
NAD83, WV NORTH
N:320178.409
E:1591055.835
LAT/LON DATUM-NAD83
LAT:39°22'16.899"
LON:80°50'06.662"

PERMITTED
APPROX. LANDING POINT

UTM 17-NAD83
N:4358096.53
E:514426.82
NAD83, WV NORTH
N:320478.716
E:1591815.799
LAT/LON DATUM-NAD83
LAT:39°22'19.979"
LON:80°49'57.042"

PERMITTED
BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83
N:4355204.13
E:515477.05
NAD83, WV NORTH
N:310929.744
E:1595103.775
LAT/LON DATUM-NAD83
LAT:39°20'45.947"
LON:80°49'13.047"

API WELL #: 47 95 02572
STATE COUNTY PERMIT

JULY 22, 2019

