

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

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JUN 17 2021

WV Department of  
Environmental Protection

API 47-095-02651 County TYLER District CENTERVILLE  
Quad WEST UNION Pad Name SHR38 Field/Pool Name \_\_\_\_\_  
Farm name ASH Well Number SHR38PHSM  
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 4358041.74 Easting 514183.63  
Landing Point of Curve Northing 4358138.02 Easting 514201.79  
Bottom Hole Northing 4359973.28 Easting 513512.47

Elevation (ft) 1,011' 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 10.18.2019 Date drilling commenced 10.30.2019 Date drilling ceased 11.30.2019  
Date completion activities began 2/17/2021 Date completion activities ceased 3/17/2021  
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, 1360, 1400, 1460, 1500 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:  
DmH

08/27/2021

API 47-095 - 02651

Farm name **ASH**

Well number **SHR38PHSM**

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Office of Oil and Gas Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	100	NEW	94 lb/ft	N/A	Y - GROUT TO SURFACE
Surface	17.5"	13.375"	597	NEW	J-55 54.5 lb/ft	N/A	Y - CEMENT TO SURFACE
Coal							
Intermediate 1	12.25"	9.625"	2,551	NEW	J-55 36 lb/ft	N/A	Y - CEMENT TO SURFACE
Intermediate 2							
Intermediate 3							
Production	8.75" & 8.5"	5.5"	13,539	NEW	P-110 20 lb/ft	N/A	Y - TOC @ 534
Tubing	5.5"	2.875	7,040	NEW	P-110CY 6.5 lb/ft	N/A	N/A
Packer type and depth set							

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Comment Details ALL DEPTHS ARE REFERENCE TO GROUND LEVEL (-29' KB)

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	HALCEM	500	15.8	1.169	584	0	8
Coal							
Intermediate 1	HALCEM	845	15.8	1.147	969	0	8
Intermediate 2							
Intermediate 3							
Production	EXP NEOCEM / NEOCEM	1,150(L) / 1,695 (T)	15	1.135 (L) / 1.132 (T)	1,305 (L) / 1,919 (T)	534	8
Tubing							

Drillers TD (ft) 13,574'

Loggers TD (ft) 13,574'

Deepest formation penetrated MARCELLUS

Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 5,671'

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 = 7: Centralize every other joint from shoe to surface  
INTERMEDIATE = 33: Centralize every other joint from shoe to surface  
PRODUCTION = 271: Centralize every joint from shoe to TOC

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



API 47- 095 - 02651

Farm name ASH

Well number SHR38PHSM

**PRODUCING FORMATION(S)**                      **DEPTHS**  
MARCELLUS                                      6513                      TVD                      6864                      MD

Please insert additional pages as applicable.

GAS TEST     Build up     Drawdown     Open Flow                      OIL TEST     Flow     Pump

SHUT-IN PRESSURE    Surface 1450                      psi                      Bottom Hole \_\_\_\_\_ psi                      DURATION OF TEST 24                      hrs

OPEN FLOW                      Gas                      Oil                      NGL                      Water                      GAS MEASURED BY  
8813                      mcfpd                      151                      bpd                      0                      bpd                      1095                      bpd                       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 <sub>2</sub> S, ETC)
	<u>0</u>		<u>0</u>		
					FORMATION LOG ATTACHED

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Please insert additional pages as applicable.

Drilling Contractor PATTERSON UTI DRILLING  
 Address 207 Carlton Drive                      City Eighty Four                      State PA                      Zip 15330

Logging Company Workover Solutions  
 Address 13996 US-6                      City Mansfield                      State PA                      Zip 16933

Cementing Company HALLIBURTON  
 Address 121 Champion Way, Suite #210                      City Canonsburg                      State PA                      Zip 15317

Stimulating Company NexTier Oilfield Solutions Inc.  
 Address 3990 Rogerdale Rd                      City Houston                      State TX                      Zip 77042

Please insert additional pages as applicable.

Completed by Michael Honce                      Telephone 304-406-8909  
 Signature [Signature]                      Title Completions Superintendent                      Date 6/11/2021

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

08/27/2021

SHR38PHSM – PERFORATION RECORD – ATTACHMENT 1					
Stage No.	Perforation Date	Perforation from MD ft.	Perforation to MD ft.	Number of Perforations	Formation(s)
1	2/17/2021	13,404.5	13,509.0	24	Marcellus Shale
2	2/18/2021	13,164.6	13,343.0	40	Marcellus Shale
3	2/19/2021	12,943.6	13,122.0	40	Marcellus Shale
4	2/26/2021	12,722.6	12,901.0	40	Marcellus Shale
5	2/26/2021	12,501.6	12,680.0	40	Marcellus Shale
6	2/28/2021	12,280.6	12,459.0	40	Marcellus Shale
7	2/28/2021	12,059.6	12,238.0	40	Marcellus Shale
8	2/28/2021	11,838.6	12,017.0	40	Marcellus Shale
9	2/28/2021	11,618.5	11,796.0	40	Marcellus Shale
10	2/28/2021	11,398.5	11,576.0	40	Marcellus Shale
11	2/28/2021	11,178.5	11,356.0	40	Marcellus Shale
12	2/28/2021	10,958.5	11,136.0	40	Marcellus Shale
13	3/1/2021	10,738.5	10,916.0	40	Marcellus Shale
14	3/1/2021	10,518.5	10,696.0	40	Marcellus Shale
15	3/1/2021	10,298.5	10,476.0	40	Marcellus Shale
16	3/1/2021	10,078.5	10,256.0	40	Marcellus Shale
17	3/1/2021	9,858.5	10,036.0	40	Marcellus Shale
18	3/1/2021	9,638.5	9,816.5	40	Marcellus Shale
19	3/1/2021	9,418.5	9,596.5	40	Marcellus Shale
20	3/2/2021	9,198.5	9,376.5	40	Marcellus Shale
21	3/4/2021	8,978.5	9,156.5	40	Marcellus Shale
22	3/4/2021	8,758.5	8,936.5	40	Marcellus Shale
23	3/5/2021	8,538.5	8,716.5	40	Marcellus Shale
24	3/5/2021	8,318.5	8,496.5	40	Marcellus Shale
25	3/5/2021	8,098.5	8,276.5	40	Marcellus Shale
26	3/6/2021	7,878.5	8,056.5	40	Marcellus Shale
27	3/6/2021	7,658.5	7,836.5	40	Marcellus Shale
28	3/7/2021	7,438.5	7,616.5	40	Marcellus Shale

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SHR38PHSM – 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 (lbs)	Amount of Water (bbls)	Amount of Nitrogen /Other (Units)
1	2/17/2021	99	8,438.0	9,262.0	3,306.0	400,000.00	6,181.0	N/A
2	2/19/2021	97	8,494.0	9,173.0	4,424.0	400,000.00	6,175.56	N/A
3	2/26/2021	100	8,037.0	8,762.0	3,762.0	400,000.00	6,171.0	N/A
4	2/26/2021	102	8,337.0	8,881.0	3,900.0	400,000.00	6,166.0	N/A
5	2/27/2021	102	8,201.0	9,364.0	4,203.0	385,000.00	6,161.0	N/A
6	2/28/2021	93	8,326.0	9,576.0	3,749.0	400,000.00	6,156.0	N/A
7	2/28/2021	98	8,213.0	8,862.0	4,585.0	400,000.00	6,151.0	N/A
8	2/28/2021	98	8,238.0	9,252.0	5,464.0	400,000.00	6,146.0	N/A
9	2/28/2021	98	8,202.0	9,236.0	3,895.0	400,000.00	6,141.0	N/A
10	2/28/2021	102	8,375.0	9,162.0	4,187.0	394,000.00	6,136.0	N/A
11	2/28/2021	103	8,235.0	9,005.0	3,762.0	400,000.00	6,131.0	N/A
12	3/1/2021	101	8,471.0	9,259.0	4,516.0	316,000.00	6,127.0	N/A
13	3/1/2021	102	8,205.0	9,143.0	4,605.0	400,000.00	6,122.0	N/A
14	3/1/2021	101	8,083.0	9,829.0	4,714.0	400,000.00	6,117.0	N/A
16	3/1/2021	101	7,992.0	8,917.0	3,872.0	800,000.00	6,107.0	N/A
16	3/1/2021	101	7,992.0	8,917.0	3,872.0	400,000.00	6,107.0	N/A
17	3/1/2021	102	8,167.0	8,933.0	4,836.0	400,000.00	6,102.0	N/A
18	3/1/2021	102	8,037.0	9,104.0	4,399.0	400,000.00	6,097.0	N/A
19	3/2/2021	102	8,034.0	9,311.0	3,775.0	390,000.00	6,092.0	N/A
20	3/2/2021	103	8,044.0	8,756.0	4,564.0	408,000.00	6,088.0	N/A
21	3/3/2021	103	7,634.0	8,512.0	3,824.0	400,000.00	6,083.0	N/A
22	3/5/2021	102	7,652.0	8,470.0	3,611.0	391,920.00	6,078.0	N/A
23	3/5/2021	105	7,936.0	8,797.0	4,170.0	400,000.00	6,073.0	N/A
24	3/5/2021	105	7,506.0	8,728.0	3,646.0	400,000.00	6,068.0	N/A
25	3/6/2021	104	7,801.0	8,733.0	4,144.0	396,000.00	6,063.0	N/A
26	3/6/2021	105	7,964.0	9,171.0	5,064.0	395,000.00	6,058.0	N/A
27	3/7/2021	103	7,913.0	8,948.0	4,249.0	400,000.00	6,053.0	N/A
28	3/7/2021	104	7,718.0	8,897.0	4,310.0	400,000.00	6,049.0	N/A

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API: 47-095-02651		FARM NAME: ASH			WELL NUMBER: SHR38PHSM
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	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, Coal, Siltstone & Sandstone
Undifferentiated Sand	582	610	582	610	Sandstone / Traces of Gray Shale, Quartz & Siltstone
Undifferentiated Silt	610	740	610	740	Siltstone / Traces of Gray Shale, Quartz & Siltstone
Undifferentiated Sand	740	760	740	760	Sandstone / Traces of Red Shale
Undifferentiated Shale	760	900	760	900	Red Shale / Traces of Siltstone, Sandstone, Limestone
Pittsburgh Coal	900	901	900	901	Sandstone / Coal
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	1,000	980	1,000	Sandstone / Traces of Red Shale
Undifferentiated Shale	1,000	1,040	1,000	1,040	Gray Shale / Traces of Limestone, Siltstone & Sandstone
Undifferentiated Sand	1,040	1,060	1,040	1,060	Sandstone / Siltstone
Undifferentiated Quartz	1,060	1,100	1,060	1,100	Quartz / Traces of Sandstone & Siltstone
Undifferentiated Lime	1,100	1,120	1,100	1,120	Limestone / Traces of Sandstone & Siltstone
Undifferentiated Sand	1,120	1,160	1,120	1,160	Sandstone / Siltstone
Undifferentiated Silt	1,160	1,280	1,160	1,280	Siltstone / Traces of Sandstone & Limestone
Undifferentiated Quartz	1,280	1,320	1,280	1,320	Quartz
Undifferentiated Silt	1,320	1,340	1,320	1,340	Siltstone / Traces of Sandstone
Undifferentiated Quartz	1,340	1,380	1,340	1,380	Quartz / Traces of Siltstone & Sandstone
Upper Kitanning	1,380	1,480	1,380	1,480	Quartz & Siltstone / Traces of Sandstone & Coal
Lower Kitanning	1,480	1,840	1,480	1,840	Sandstone & Siltstone / Traces of Quartz & Coal
Big Lime	1,840	1,920	1,840	1,920	Limestone / Traces of Siltstone
Big Injun	1,920	2,060	1,920	2,060	Sandstone & Limestone / Traces of Siltstone
Price	2,060	2,210	2,060	2,210	Siltstone / Traces of Red Shale
Weir	2,210	2,360	2,210	2,360	Sandstone & Siltstone / Traces of Limestone
Berea	2,360	2,540	2,360	2,540	Siltstone
Gordon	2,540	3,350	2,540	3,350	Siltstone / Traces of Sandstone & Pyrite

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API: 47-095-02651		FARM NAME: ASH			WELL NUMBER: SHR38PHSM
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)
Warren Sand	3,350	4,940	3,350	4,940	Siltstone & Sandstone
Benson	4,940	5,150	4,940	5,150	Siltstone & Sandstone
Alexander	5,150	6,300	5,150	6,418	Siltstone / Traces of Gray Shale
Middlesex	6,300	6,342	6,418	6,479	Gray Shale / Traces of Siltstone
West River	6,342	6,413	6,479	6,609	Gray Shale
Burket	6,413	6,448	6,609	6,703	Gray Shale
Tully	6,448	6,470	6,703	6,777	Gray Shale
Hamilton	6,470	6,486	6,777	6,839	Gray Shale & Limestone
Upper Marcellus	6,486	6,506	6,839	6,969	Gray Shale
Middle Marcellus	6,506		6,969		Gray Shale
TD - Marcellus					

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**DRILLING CONTRACTOR**

PATTERSON-UTI DRILLING COMPANY  
4000 TOWN CENTER BOULEVARD SUITE 240  
CANONSBURG, PA 15317

**CEMENTING COMPANY**

HALLIBURTON  
121 CHAMPION WAY SUITE #210  
CANONSBURG, PA 15317

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	2/17/2021
Job End Date:	3/7/2021
State:	West Virginia
County:	Tyler
API Number:	47-095-02651-00-00
Operator Name:	CNX Gas Company LLC
Well Name and Number:	SHR38 M2 PHSM
Latitude:	39.37172700
Longitude:	-80.83533600
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,551
Total Base Water Volume (gal):	7,548,151
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	Operator	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	84.53304	None
Proppant (Sand)	Nextier	Proppant					
			Crystalline silica: Quartz (SiO2)	14808-60-7	100.00000	14.86413	None
7.5% HCl	Chemstream	Acid					
			Water	7732-18-5	92.50000	0.49463	None
7.5% HCl	Chemstream	Acid					
			Hydrochloric Acid	7647-01-0	7.50000	0.04010	None
StimStream FR 9800	Chemstream	Friction Reducer					
			Water	7732-18-5	47.00000	0.01841	None
StimStream SC-398	Chemstream	Scale Inhibitor					
			Non-Hazardous substances	Proprietary	90.00000	0.01163	None
StimStream FR 9800	Chemstream	Friction Reducer					
			alkanes, C16-20-iso-	90622-59-6	25.00000	0.00979	None
StimStream FR 9800	Chemstream	Friction Reducer					
			butene, homopolymer	9003-29-6	25.00000	0.00979	None
Clearal 268	Chemstream	Biocide					
			Non-Hazardous substances	Proprietary	80.00000	0.00824	None

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CoilStream VB 625	Chemstream	Gelling Agent					
			Heavy Aliphatic Naphtha	64742-96-7	60.00000	0.00233	None
Clearal 268	Chemstream	Biocide					
			Glutaraldehyde	111-30-8	20.00000	0.00206	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Guara Gum	9000-30-0	50.00000	0.00195	None
StimStream SC-398	Chemstream	Scale Inhibitor					
			Bis(HexaMethylene Triamone Penta(Methylene Phoshonic Acid) (BHMT))	34690-00-1	10.00000	0.00129	None
StimStream FR 9800	Chemstream	Friction Reducer					
			Alcohols, C12-18, ethoxylated	68213-23-0	3.00000	0.00118	None
PVS Iron Control 1	Chemstream	Iron Control					
			Citric Acid	77-92-9	50.50000	0.00048	None
PVS Iron Control 1	Chemstream	Iron Control					
			Water	7732-18-5	49.50000	0.00047	None
ACI-250	Chemstream	Acid Inhibitor					
			Methyl Alcohol	67-56-1	45.00000	0.00031	None
Clearal 268	Chemstream	Biocide					
			Quaternary Ammonium Compounds	68424-85-1	3.00000	0.00031	None
Clearal 268	Chemstream	Biocide					
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00031	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	5.00000	0.00019	None
Ammonium Persulfate	Chemstream	Breaker					
			Ammonium persulfate	7727-54-0	100.00000	0.00017	None
Clearal 268	Chemstream	Biocide					
			Ethanol	64-17-5	1.50000	0.00015	None
ACI-250	Chemstream	Acid Inhibitor					
			Ethylene Glycol	107-21-1	20.00000	0.00014	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	3.00000	0.00012	None
CoilStream VB 625	Chemstream	Gelling Agent					
			Trade Secret	Proprietary	3.00000	0.00012	None
ACI-250	Chemstream	Acid Inhibitor					
			Trade Secret	Proprietary	15.00000	0.00010	None
ACI-250	Chemstream	Acid Inhibitor					
			N, N-Dimethylformamide	68-12-2	10.00000	0.00007	None
ACI-250	Chemstream	Acid Inhibitor					
			Water	7732-18-5	10.00000	0.00007	None
ACI-250	Chemstream	Acid Inhibitor					
			2-Butoxyethanol	111-76-2	5.00000	0.00003	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.

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 N. N. Dimethylformamide  
 17 2021  
 10/17/2021

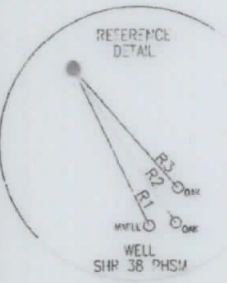
\* Total Water Volume sources may include fresh water, produced water, and/or recycled water  
\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%

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

BHL is located on topo map 10,026 feet south of Latitude: 39°25'00"  
 SHL is located on topo map 1,192 feet south of Latitude: 39°22'30"

LINE	BEARING	DISTANCE
R1	S 25°08'16" E	276.96'
R2	S 32°56'02" E	292.93'
R3	S 40°41'54" E	250.68'
R4	N 5°31'36" W	2188.28'
R5	N 77°30'17" W	1068.97'
R6	S 81°2'09" W	842.91'



PERMITTED  
 BOTTOM HOLE LOCATION (SHL)  
 UTM 17-NAD83  
 N:4358973.17  
 E:513512.07  
 NAD83, WY NORTH  
 N:326567.061  
 E:1588916.817  
 LAT/LON DATUM-NAD83  
 LAT:39°23'20.908"  
 LON:80°50'35.137"

**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

BHL is located on topo map 2,759 feet west of Longitude: 80°50'00"  
 SHL is located on topo map 566 feet west of Longitude: 80°50'00"

AS-DRILLED  
 BOTTOM HOLE LOCATION (SHL)  
 UTM 17-NAD83  
 N:4358973.17  
 E:513512.07  
 NAD83, WY NORTH  
 N:326567.061  
 E:1588916.817  
 LAT/LON DATUM-NAD83  
 LAT:39°23'20.911"  
 LON:80°50'35.120"

AS-DRILLED  
 APPROX. LANDING POINT  
 UTM 17-NAD83  
 N:4358138.02  
 E:514201.79  
 NAD83, WY NORTH  
 N:320627.20  
 E:1591079.52  
 LAT/LON DATUM-NAD83  
 LAT:39°22'21.338"  
 LON:80°50'06.444"

WELL  
 SHR38PHSM

**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.

**THRASHER**

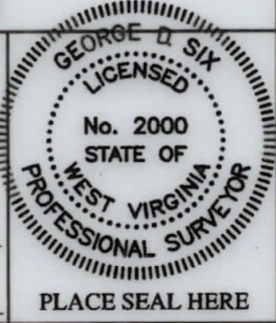
CIVIL, ENVIRONMENTAL, CONSULTING, FIELD SERVICES  
 600 WHITE OAKS BOULEVARD, BRIDGEPORT, WV 26330  
 PHONE (304) 824-4108 • FAX (304) 824-7831

SEE PAGE 2 FOR SURFACE OWNERS AND LESSORS

FILE #: SHR 38 PHSM AS-DRILLED  
 DRAWING #: SHR 38 PHSM 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.: \_\_\_\_\_ r 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: JANUARY 23, 2020  
 OPERATOR'S WELL #: SHR 38 PHSM AS-DRILLED  
 API WELL #: 47 95 02651  
 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: 294.879±

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: 13,448'±  
 WELL OPERATOR CNX GAS COMPANY LLC DESIGNATED AGENT ANTHONY KENDZIORA  
 Address 1000 CONSOL ENERGY DRIVE Address 1000 CONSOL ENERGY DRIVE  
 City CANONSBURG State PA Zip Code 15317 City CANONSBURG State PA Zip Code 15317

08/27/2021

# SHR 38 PHSM

## PAGE 2 OF 2

### AS DRILLED PLAT

	SURFACE OWNER	LESSOR	DIST-TM/PAR
1 5	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
6	DIANA L. BOGER	EDNA DILLON SAMUEL DAVID DILLON AND DONNA L. DILLON, H/W HOWARD D. SPURLOCK AND MARIAN E. SPURLOCK, H/W EDITH M. DOAK PEARL G. MCINTYRE PAUL MCINTYRE KERMIT MCINTYRE AND RUTH MCINTYRE, H/W SHEILA L. GUY EDITH W. MCINTYRE	P/O 1-16/18
7	WILLIAM D. & MARY C. DANIELS	GARY W. AND DEBRA J. DAVIS RUBY N. SPENCER AND FRED A. NICHOLS AND LAURA L. NICHOLS, H/W IRO NICHOLS MONA WRIGHT RALPH SHERWOOD WANDA SCHAUER CONRAD COSTILOW	1-16/2.1
11	WILLIAM D. & MARY C. DANIELS	WILLIAM N. DANIELS AND MARY C. DANIELS, H/W	P/O 1-16/2
12	KENNETH G. WRIGHT TRUST KENNETH G. WRIGHT, TRUSTEE	FRANKLIN L. MERCER AND RUTH L. MERCER, H/W AND FRANKLIN L. MERCER, ATTORNEY-IN-FACT FOR ROGER N. MERCER AND GLORIA MERCER, H/W DELORES ROSSI LUTHER ROGERS AND ANITA ROGERS, H/W MARIE MERCER HARLEY EDWIN SPENCER AND ALICE RUTH SPENCER, H/W THE KENNETH G. WRIGHT TRUST, DATED 12/21/2010, BY KENNETH G. WRIGHT, TRUSTEE	1-16/1
15	KENNETH G. WRIGHT TRUST KENNETH G. WRIGHT, TRUSTEE	FRANKLIN L. MERCER AND RUTH L. MERCER, H/W AND FRANKLIN L. MERCER, ATTORNEY-IN-FACT FOR ROGER N. MERCER AND GLORIA MERCER, H/W DELORES ROSSI LUTHER ROGERS AND ANITA ROGERS, H/W MARIE MERCER HARLEY EDWIN SPENCER AND ALICE RUTH SPENCER, H/W FORREST JENKINS AND EVA JENKINS, H/W, FOREST JENKINS, ATTORNEY-IN-FACT FOR THE FOLLOWING: CARL JENKINS, BETTY JENKINS, STELLA DEAN JENKINS, ZETTA ASH, ALICE HAUGHT AND THOMAS HAUGHT ZETTA F. ASH CARL JENKINS AND BETTY JENKINS, H/W STELLA DEAN JENKINS ALICE HAUGHT ALFRED COTTRILL, INDIVIDUALLY AND AS ATTORNEY-IN- FACT FOR RENNA FOX BARBARA BALLOU BAKER KAYYONNE PASULKA CHARLES H. BALLOU AND LOIS M. BALLOU, H/W STEVEN E. BALLOU AND LINDA M. BALLOU, H/W	1-13/13.4
17	KENNETH G. WRIGHT TRUST C/O KENNETH G. WRIGHT, TRUSTEE	FRANKLIN L. MERCER AND RUTH L. MERCER, H/W AND FRANKLIN L. MERCER, ATTORNEY-IN-FACT FOR ROGER N. MERCER AND GLORIA MERCER, H/W DELORES ROSSI LUTHER ROGERS AND ANITA ROGERS, H/W MARIE MERCER HARLEY EDWIN SPENCER AND ALICE RUTH SPENCER, H/W FORREST JENKINS AND EVA JENKINS, H/W, FOREST JENKINS, ATTORNEY-IN-FACT FOR THE FOLLOWING: CARL JENKINS, BETTY JENKINS, STELLA DEAN JENKINS, ZETTA ASH, ALICE HAUGHT AND THOMAS HAUGHT ZETTA F. ASH CARL JENKINS AND BETTY JENKINS, H/W STELLA DEAN JENKINS ALICE HAUGHT ALFRED COTTRILL, INDIVIDUALLY AND AS ATTORNEY-IN- FACT FOR RENNA FOX BETTY E. MORRISON LARRY J. MCCAW AND JOETTE B. MCCAW, H/W KITTY MIESIAK, FKA, KITTY BOND ROY DEAN ASH JANICE J. WAGENER, FKA, JANICE L. MAY MARY FRANCES CARPENTER JAMES E. BRAMHALL CHARLES H. BALLOU AND LOIS M. BALLOU, H/W JUDY S. WETZEL, FKA, JUDY THACKER BARBARA BALLOU BAKER KAYYONNE PASULKA STEVEN E. BALLOU AND LINDA M. BALLOU, H/W	1-13/13.3
27	LAWRENCE DEAN MOORE & JULIE ANN MARKLE	MARY J. MOORE	1-13/11
28	LAWRENCE DEAN MOORE & JULIE ANN MARKLE	MARY J. MOORE	1-13/13

AS-DRILLED  
SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83  
N:4358041.74  
E:514183.63  
NAD83\_WV\_NORTH  
N:320312.251  
E:1591014.769  
LAT:39°22'18.216"  
LON:80°50'07.210"

AS-DRILLED  
APPROX. LANDING POINT

UTM 17-NAD83  
N:4358138.02  
E:514201.78  
NAD83\_WV\_NORTH  
N:320627.20  
E:1591079.63  
LAT:39°22'21.338"  
LON:80°50'06.444"

AS-DRILLED  
BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83  
N:4359973.28  
E:513512.47  
NAD83\_WV\_NORTH  
N:32687.381  
E:1588916.107  
LAT:39°23'20.911"  
LON:80°50'35.120"

PERMITTED  
SURFACE HOLE LOCATION (SHL)

UTM 17-NAD83  
N:4358041.74  
E:514183.63  
NAD83\_WV\_NORTH  
N:320312.251  
E:1591014.769  
LAT:39°22'18.216"  
LON:80°50'07.210"

PERMITTED  
APPROX. LANDING POINT

UTM 17-NAD83  
N:4358107.59  
E:514189.48  
NAD83\_WV\_NORTH  
N:320528.015  
E:1591037.558  
LAT:39°22'20.352"  
LON:80°50'06.961"

PERMITTED  
BOTTOM HOLE LOCATION (BHL)

UTM 17-NAD83  
N:4359973.17  
E:513512.07  
NAD83\_WV\_NORTH  
N:32687.061  
E:1588916.817  
LAT:39°23'20.911"  
LON:80°50'35.137"

08/27/2021