

Well Operator's Report of Well Work



Where energy meets innovation.

Well Number: SHR60 7H (514466)

API: 47 - 095 - 02342

Submission: Initial Amended

Notes: This report is for well 514466(SHR60H7). The well was top set under the API # above - 47-095-02342. However, the horizontal portion of this well was drilled under permit # 47-095-02543. Per guidance from the WV DEP the well record is being submitted using the original API.

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APPROVED

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A handwritten signature in blue ink, appearing to be 'J. G.', is written over the date stamp.

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 - 02342 County Tyler District McElroy
Quad Shirley Pad Name SHR60 Field/Pool Name N/A
Farm name VIVIAN J. WELLS ET AL Well Number SHR60 7H (514466)
Operator (as registered with the OOG) EQT Production Company
Address 2400 Ansys Drive, 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 4,360,580.01 Easting 516,269.36
Landing Point of Curve Northing 4,360,173.29 Easting 517,192.71
Bottom Hole Northing 4,357,674.71 Easting 518,324.5

Elevation (ft) 1011' 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)

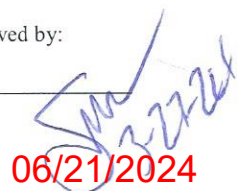
Synthetic Oil Based Mud 12.5 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, glutaraldehyde solution, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose

Date permit issued 08/22/2017 Date drilling commenced 1/29/2019 Date drilling ceased 04/20/2019
Date completion activities began _____ Date completion activities ceased _____
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 95,145,582,918 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1210,1877 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 31, 432, 698, 887, 1327 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:


06/21/2024

API 47-095 - 02342 Farm name VIVIAN J. WELLS ET AL Well number SHR60 7H (514466)

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	30"	26"	85'	NEW	A-500 85.6#	N/A	Y
Surface	17-1/2"	13-3/8"	1013'	NEW	J-55 54.5#	376'	Y
Coal							
Intermediate 1	12-3/8"	9-5/8"	2800'	NEW	A-500 40#	N/A	Y
Intermediate 2							
Intermediate 3							
Production	8-1/2"	5 1/2"	18,002'	NEW	HP-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has a calculated TOC of 2210' MD, which is greater than 500' TVD above the producing formation. No issues during cement job.

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	CLASS A	90	15.6	1.18	106	0	8+
Surface	CLASS A	1010	15.6	1.20	1212	0	8
Coal							
Intermediate 1	CLASS A	1030	15.6	1.18	1215	0	8
Intermediate 2							
Intermediate 3							
Production	CLASS A	3230	15.2	1.10	3553	2210	8+
Tubing							

Drillers TD (ft) 18,022' MD Loggers TD (ft) N/A
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A
 Plug back procedure N/A

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Kick off depth (ft) 8377' MD

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 _____
 CONDUCTOR- NONE _____
 SURFACE- ON SHOE TRACK AND EVERY 500' TO SURFACE _____
 INTERMEDIATE: ON SHOE TRACK AND EVERY 500' FEET TO SURFACE _____
 PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 4019' _____

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 _____

06/21/2024 

API 47- 095 - 02342 Farm name VIVIAN J. WELLS ET AL Well number SHR60 7H (514466)

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
2	11/17/2019	17714	17884	40	MARCELLUS
3	11/18/2019	17534	17694	40	MARCELLUS
4	11/18/2019	17334	17505	40	MARCELLUS
5	11/19/2019	17114	17285	40	MARCELLUS
Please see attached below					

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Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

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	1/16/201	95.2	8817	6488	2883	190500	5806	0
2	1/17/201	97.3	8844	5382	3628	439910	9739	0
3	1/18/201	99.7	8811	5514	3864	400000	9075	0
4	1/19/201	98.6	8816	5290	4076	449180	9773	0
Please see attached below								

Please insert additional pages as applicable.

06/21/2024 

API 47- 095 - 02342 Farm name VIVIAN J. WELLS ET AL Well number SHR60 7H (514466)

PRODUCING FORMATION(S)	DEPTHS	
Marcellus	6,604-6,662 TVD	8,709-18,022 MD

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 631 psi Bottom Hole _____ psi DURATION OF TEST 24 hrs

OPEN FLOW Gas 2375 mcfpd Oil _____ bpd NGL _____ bpd Water 26 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)
	0		0		

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Please insert additional pages as applicable.

Drilling Contractor Patterson UTI (Rig 578)
Address 207 Carlton Dr City Eighty-Four State PA Zip 15330

Logging Company Baker Hughes
Address 400 Technology Dr Suite 100 City Canonsburg State PA Zip 15317

Cementing Company Halliburton
Address 121 Champion Way Suite 110 City Canonsburg State PA Zip 15317

Cementing Company Boss Services, Inc
Address 3978 N. Elmdale Road City Olney State PA Zip 62450

Please insert additional pages as applicable.

Completed by Adam Hughey Telephone 724-579-5475
Signature [Signature] Title Director of Completions Date 2/5/2024

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

06/21/2024 [Signature]

API 47- 095 - 02342 Farm name VIVIAN J. WELLS ET AL Well number SHR60 7H (514466)

Drilling Contractor _____
Address _____ City _____ State _____ Zip _____

Logging Company Scientific Drilling International
Address 124 Vista Drive City Charleroi State PA Zip 15022

Logging Company Gyrodatta
Address 73 Noblestown Rd City Carnegie State PA Zip 15106

Cementing Company _____
Address _____ City _____ State _____ Zip _____

Stimulation Company US Well Services LLC
Address 770 S Post Oak Ln Ste 405 City Houston State TX Zip 77056

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06/21/2024

Well# 514466 Final Formations API# 47-095-02543				
Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)
FRESH WATER ZONE	1	1	918	918
SAND/SHALE	1	1	31	31
COAL	31	31	35	35
SAND/SHALE	35	35	432	432
COAL	432	432	436	436
SAND/SHALE	436	436	698	698
COAL	698	698	702	702
SAND/SHALE	702	702	887	887
COAL	887	887	891	891
SAND/SHALE	891	891	1,327	1,327
COAL	1,327	1,327	1,331	1,331
SAND/SHALE	1,331	1,331	1,546	1,545
MAXTON	1,546	1,545	1,599	1,598
SAND/SHALE	1,599	1,598	1,841	1,840
BIG LIME	1,841	1,840	2,123	2,120
SAND/SHALE	2,123	2,120	2,263	2,260
WEIR	2,263	2,260	2,329	2,326
SAND/SHALE	2,329	2,326	2,380	2,377
GANTZ	2,380	2,377	2,427	2,424
SAND/SHALE	2,427	2,424	2,473	2,470
FIFTY FOOT	2,473	2,470	2,508	2,505
SAND/SHALE	2,508	2,505	2,607	2,604
THIRTY FOOT	2,607	2,604	2,648	2,645
SAND/SHALE	2,648	2,645	2,698	2,695
GORDON	2,698	2,695	2,712	2,709
SAND/SHALE	2,712	2,709	2,903	2,900
FIFTH SAND	2,903	2,900	2,932	2,929
SAND/SHALE	2,932	2,929	3,019	3,016
BAYARD	3,019	3,016	3,079	3,076
SAND/SHALE	3,079	3,076	3,351	3,348
WARREN	3,351	3,348	3,425	3,422
SAND/SHALE	3,425	3,422	3,445	3,442
SPEECHLEY	3,445	3,442	3,563	3,560
SAND/SHALE	3,563	3,560	3,867	3,864
BALLTOWN A	3,867	3,864	3,937	3,934
SAND/SHALE	3,937	3,934	4,560	4,556
RILEY	4,560	4,556	4,597	4,593
SAND/SHALE	4,597	4,593	4,977	4,973
BENSON	4,977	4,973	5,014	5,010
SAND/SHALE	5,014	5,010	5,234	5,224
ALEXANDER	5,234	5,224	5,306	5,290
ELKS	5,306	5,290	7,686	6,276
SONYEA	7,686	6,276	8,062	6,409
MIDDLESEX	8,062	6,409	8,189	6,453
GENESEE	8,189	6,453	8,418	6,532
GENESEO	8,418	6,532	8,513	6,559
TULLY	8,513	6,559	8,614	6,584
HAMILTON	8,614	6,584	8,709	6,604
MARCELLUS	8,709	6,604	18,022	6,662

06/21/2024

Wireline Pump In Volumes						
Interval Number	Start Date	End Date	Type	Pumping Result	Fluid Name	Total Stim Volume (bbl)
1	11/16/2019 18:41	11/16/2019 21:57	Stage	Successful	Wireline	0.00
2	11/17/2019 16:05	11/17/2019 18:00	Stage	Successful	Wireline	739.00
3	11/18/2019 5:35	11/18/2019 7:16	Stage	Successful	Wireline	606.00
4	11/19/2019 3:16	11/19/2019 5:09	Stage	Successful	Wireline	622.00
5	11/23/2019 17:30	11/23/2019 19:23	Stage	Successful	Wireline	702.00
6	11/25/2019 4:17	11/25/2019 6:00	Stage	Successful	Wireline	595.00
7	11/26/2019 15:01	11/26/2019 16:50	Stage	Successful	Wireline	587.00
8	11/27/2019 7:04	11/27/2019 8:53	Stage	Successful	Wireline	526.00
9	11/27/2019 14:15	11/27/2019 16:07	Stage	Successful	Wireline	567.00
10	11/28/2019 5:49	11/28/2019 7:40	Stage	Successful	Wireline	574.00
11	11/28/2019 23:04	11/29/2019 0:51	Stage	Successful	Wireline	550.00
12	11/29/2019 8:07	11/29/2019 10:11	Stage	Successful	Wireline	488.00
13	11/30/2019 3:43	11/30/2019 5:32	Stage	Successful	Wireline	530.00
14	12/1/2019 0:15	12/1/2019 2:00	Stage	Successful	Wireline	546.00
15	12/1/2019 23:31	12/2/2019 1:18	Stage	Successful	Wireline	533.00
16	12/3/2019 2:35	12/3/2019 4:22	Stage	Successful	Wireline	541.00
17	12/3/2019 23:53	12/4/2019 1:40	Stage	Successful	Wireline	483.00
18	12/4/2019 13:44	12/4/2019 15:27	Stage	Successful	Wireline	509.00
19	12/5/2019 2:54	12/5/2019 4:40	Stage	Successful	Wireline	478.00
20	12/6/2019 5:50	12/6/2019 7:48	Stage	Successful	Wireline	452.00
21	12/6/2019 16:46	12/6/2019 18:29	Stage	Successful	Wireline	381.00
22	12/7/2019 9:28	12/7/2019 11:15	Stage	Successful	Wireline	446.00
23	12/7/2019 20:25	12/7/2019 22:10	Stage	Successful	Wireline	367.00
24	12/8/2019 7:47	12/8/2019 9:35	Stage	Successful	Wireline	370.00
25	12/8/2019 19:46	12/8/2019 21:30	Stage	Successful	Wireline	333.00
26	12/9/2019 9:45	12/9/2019 11:25	Stage	Successful	Wireline	380.00
27	12/9/2019 22:30	12/10/2019 0:10	Stage	Successful	Wireline	352.00
28	12/10/2019 10:09	12/10/2019 11:48	Stage	Successful	Wireline	360.00
29	12/10/2019 20:07	12/10/2019 21:48	Stage	Successful	Wireline	303.00
30	12/11/2019 10:29	12/11/2019 12:11	Stage	Successful	Wireline	320.00
31	12/12/2019 1:23	12/12/2019 3:10	Stage	Successful	Wireline	289.00
32	12/13/2019 6:49	12/13/2019 8:34	Stage	Successful	Wireline	293.00
33	12/14/2019 9:47	12/14/2019 12:03	Stage	Successful	Wireline	291.00
34	12/15/2019 0:31	12/15/2019 2:10	Stage	Successful	Wireline	261.00
35	12/15/2019 10:55	12/15/2019 12:36	Stage	Successful	Wireline	252.00
36	12/15/2019 21:51	12/16/2019 1:45	Stage	Successful	Wireline	232.00
37	12/16/2019 17:23	12/16/2019 19:04	Stage	Successful	Wireline	234.00
38	12/17/2019 4:09	12/17/2019 5:48	Stage	Successful	Wireline	223.00
39	12/18/2019 13:49	12/18/2019 15:30	Stage	Successful	Wireline	221.00
40	12/18/2019 23:39	12/19/2019 1:18	Stage	Successful	Wireline	209.00
41	12/19/2019 19:30	12/19/2019 21:11	Stage	Successful	Wireline	182.00
42	12/20/2019 8:23	12/20/2019 10:02	Stage	Successful	Wireline	196.00
43	12/20/2019 19:21	12/20/2019 20:59	Stage	Successful	Wireline	183.00
44	12/21/2019 6:17	12/21/2019 7:58	Stage	Successful	Wireline	169.00
45	12/21/2019 19:17	12/21/2019 20:56	Stage	Successful	Wireline	153.00
46	12/22/2019 7:09	12/22/2019 8:50	Stage	Successful	Wireline	149.00
47	12/22/2019 17:53	12/22/2019 19:32	Stage	Successful	Wireline	136.00

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Stimulation Stages													
Interval Number	Start Date	End Date	P Breakdown (psi)	P Treat Avg (psi)	P Treat Max (psi)	ISIP (psi)	Frac Gradient (psi/ft)	Slurry Rate Max (bbbl/min)	Slurry Rate Avg (bbbl/min)	# Pumps Start	# Pumps End	Impaired Stim Volume (bbbl)	Total Stim Volume (bbbl)
1	11/16/2019 18:41	11/16/2019 21:57	6,488.00	8,817.08	9,155.60	2,883.00	0.89	100.02	95.22	16.00	15.00	5,806.00	5,806.00
2	11/17/2019 16:05	11/17/2019 18:00	5,382.00	8,844.81	9,207.19	3,624.00	1.00	100.42	97.31	16.00	15.00	9,739.00	9,739.00
3	11/18/2019 5:35	11/18/2019 7:16	5,514.00	8,811.33	9,207.33	3,864.00	1.05	101.00	99.69	15.00	14.00	9,075.00	9,075.00
4	11/19/2019 3:16	11/19/2019 5:09	5,290.00	8,816.35	9,164.86	4,076.00	1.07	100.39	98.61	14.00	13.00	9,773.00	9,773.00
5	11/23/2019 17:30	11/23/2019 19:23	3,785.00	8,632.42	9,148.59	3,885.00	1.03	101.06	98.41	14.00	13.00	9,366.00	9,366.00
6	11/25/2019 4:17	11/25/2019 6:00	6,049.00	8,672.31	9,639.98	4,073.00	1.06	100.79	98.41	15.00	15.00	9,366.00	9,366.00
7	11/26/2019 15:01	11/26/2019 16:50	5,536.00	8,863.94	9,269.53	4,478.00	1.12	100.40	96.91	15.00	15.00	9,651.00	9,651.00
8	11/27/2019 14:45	11/27/2019 16:53	5,212.00	8,815.11	9,197.75	4,219.00	1.09	100.53	100.05	15.00	15.00	9,712.00	9,712.00
9	11/27/2019 14:45	11/27/2019 16:07	4,309.00	8,684.34	9,173.07	4,217.00	1.08	100.26	98.84	15.00	14.00	9,633.00	9,633.00
10	11/28/2019 5:49	11/28/2019 7:40	5,072.00	8,604.55	9,175.74	4,130.00	1.07	100.90	98.24	16.00	16.00	9,682.00	9,682.00
11	11/28/2019 23:04	11/29/2019 0:51	5,473.00	8,722.92	9,988.36	4,140.00	1.08	100.40	99.92	16.00	16.00	9,657.00	9,657.00
12	11/29/2019 8:07	11/29/2019 10:11	5,230.00	8,651.69	9,183.76	4,128.00	1.07	100.82	91.45	16.00	16.00	10,085.00	10,085.00
13	11/30/2019 3:43	11/30/2019 5:32	5,263.00	8,449.26	9,650.38	4,487.00	1.12	100.40	99.20	16.00	16.00	9,761.00	9,761.00
14	12/1/2019 15:15	12/1/2019 17:00	5,437.00	8,676.65	9,433.08	4,185.00	1.06	100.49	99.96	16.00	15.00	9,559.00	9,559.00
15	12/1/2019 23:31	12/2/2019 1:18	5,804.00	8,639.43	9,680.55	4,105.00	1.08	100.90	99.94	16.00	15.00	9,660.00	9,660.00
16	12/3/2019 2:35	12/3/2019 4:22	5,278.00	8,744.34	9,007.28	4,250.00	1.08	100.80	100.38	16.00	16.00	9,640.00	9,640.00
17	12/3/2019 23:53	12/4/2019 1:40	5,626.00	8,796.97	9,005.27	4,330.00	1.09	100.40	99.88	16.00	16.00	9,661.00	9,661.00
18	12/4/2019 13:44	12/4/2019 15:27	5,536.00	8,605.48	8,865.60	3,844.00	1.03	101.68	100.27	15.00	15.00	9,384.00	9,384.00
19	12/5/2019 2:54	12/5/2019 4:40	5,098.00	8,603.14	9,012.85	4,000.00	1.13	100.53	99.30	14.00	14.00	9,618.00	9,618.00
20	12/6/2019 5:50	12/6/2019 7:48	5,223.00	8,256.09	8,716.30	4,111.00	1.07	101.62	99.16	15.00	15.00	9,964.00	9,964.00
21	12/6/2019 16:46	12/6/2019 18:29	5,300.00	8,266.98	8,831.79	4,315.00	1.11	100.66	98.53	15.00	13.00	9,419.00	9,419.00
22	12/7/2019 9:28	12/7/2019 11:15	5,196.00	8,399.79	8,715.35	4,072.00	1.07	101.06	100.02	15.00	14.00	9,307.00	9,307.00
23	12/7/2019 20:25	12/7/2019 22:10	5,112.00	8,283.47	9,652.14	4,056.00	1.06	100.40	98.23	15.00	15.00	9,576.00	9,576.00
24	12/8/2019 7:47	12/8/2019 9:35	5,186.00	8,371.75	8,828.79	3,955.00	1.05	100.40	98.97	15.00	15.00	9,535.00	9,535.00
25	12/8/2019 19:46	12/8/2019 21:30	5,459.00	8,380.70	9,283.86	4,068.00	1.06	100.46	98.20	14.00	13.00	9,538.00	9,538.00
26	12/9/2019 9:45	12/9/2019 11:25	5,446.00	8,526.54	8,277.44	4,280.00	1.10	100.93	100.34	14.00	14.00	9,138.00	9,138.00
27	12/9/2019 22:30	12/10/2019 0:10	5,407.00	8,355.33	9,007.10	4,366.00	1.11	100.53	99.25	15.00	14.00	9,175.00	9,175.00
28	12/10/2019 10:09	12/10/2019 11:48	5,259.00	8,086.74	8,319.06	4,234.00	1.09	100.57	100.19	15.00	15.00	9,109.00	9,109.00
29	12/10/2019 20:07	12/10/2019 21:48	5,279.00	8,255.93	9,637.06	4,222.00	1.09	100.84	99.07	15.00	15.00	9,235.00	9,235.00
30	12/11/2019 10:29	12/11/2019 12:11	4,974.00	8,229.65	8,822.03	3,816.00	1.01	100.90	100.39	15.00	15.00	9,129.00	9,129.00
31	12/12/2019 1:23	12/12/2019 3:10	5,346.00	7,721.69	9,027.15	4,289.00	1.11	100.60	93.80	15.00	14.00	9,055.00	9,055.00
32	12/13/2019 6:49	12/13/2019 8:34	4,884.00	8,018.79	8,413.15	4,630.00	1.15	100.70	97.06	15.00	13.00	9,406.00	9,406.00
33	12/14/2019 9:47	12/14/2019 12:03	4,866.00	8,154.90	8,591.41	4,351.00	1.10	100.66	99.59	14.00	12.00	9,378.00	9,378.00
34	12/15/2019 0:31	12/15/2019 2:10	5,490.00	8,038.00	8,545.04	4,261.00	1.09	100.53	98.84	15.00	15.00	9,197.00	9,197.00
35	12/15/2019 10:55	12/15/2019 12:36	5,197.00	7,963.28	8,558.27	4,214.00	1.08	100.79	99.55	15.00	15.00	9,232.00	9,232.00
36	12/15/2019 21:51	12/16/2019 1:45	5,348.00	7,957.05	8,701.98	3,949.00	1.05	100.71	98.94	15.00	15.00	9,360.00	9,360.00
37	12/16/2019 17:23	12/16/2019 19:04	5,375.00	7,822.63	8,714.61	4,060.00	1.05	100.53	98.26	14.00	14.00	9,339.00	9,339.00
38	12/17/2019 4:09	12/17/2019 5:48	5,278.00	7,935.61	8,382.00	4,218.00	1.08	100.79	100.57	14.00	14.00	9,024.00	9,024.00
39	12/18/2019 13:49	12/18/2019 15:30	5,734.00	8,469.96	8,376.68	4,210.00	1.07	100.75	99.46	15.00	15.00	9,154.00	9,154.00
40	12/18/2019 23:39	12/19/2019 1:18	5,664.00	8,206.58	8,863.94	4,532.00	1.14	100.26	99.91	15.00	15.00	9,172.00	9,172.00
41	12/19/2019 19:30	12/19/2019 21:11	5,093.00	7,910.96	8,384.92	4,237.00	1.08	100.44	100.01	15.00	14.00	9,252.00	9,252.00
42	12/20/2019 8:23	12/20/2019 10:02	5,096.00	7,619.25	8,285.33	4,037.00	1.05	100.40	100.04	15.00	15.00	9,169.00	9,169.00
43	12/20/2019 19:21	12/20/2019 20:59	5,252.00	7,838.56	8,665.38	4,036.00	1.05	100.66	100.32	15.00	15.00	9,081.00	9,081.00
44	12/21/2019 6:17	12/21/2019 7:58	5,483.00	7,684.98	8,655.11	4,166.00	1.07	100.62	99.05	15.00	14.00	9,177.00	9,177.00
45	12/21/2019 19:17	12/21/2019 20:56	5,252.00	7,561.48	8,597.46	4,111.00	1.06	100.88	100.21	14.00	13.00	9,206.00	9,206.00
46	12/22/2019 7:09	12/22/2019 8:50	5,555.00	7,695.70	8,337.32	4,090.00	1.05	101.06	100.27	14.00	13.00	9,273.00	9,273.00
47	12/22/2019 17:53	12/22/2019 19:32	5,429.00	7,713.44	8,568.29	3,902.00	1.04	100.93	100.24	14.00	14.00	9,074.00	9,074.00

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	11/16/2019
Job End Date:	12/22/2019
State:	West Virginia
County:	Tyler
API Number:	47-095-02543-00-00
Operator Name:	EQT Production
Well Name and Number:	SHR60 7H
Latitude:	39.39456150
Longitude:	-80.81106047
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,650
Total Base Water Volume (gal):	19,177,284
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	EQT	Carrier/Base Fluid	Water	7732-18-5	100.00000	88.59989	None
Sand (Proppant)	EQT	Proppant	Silica Substrate	14808-60-7	100.00000	11.30990	None
FR-9800	ChemStream	Friction Reducer	Copolymer of 2-propenamide	Proprietary	30.00000	0.01472	None
			Petroleum Distillate	64742-47-8	20.00000	0.00982	None
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00098	None
			Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00098	None
			Ammonium chloride ((NH4)Cl)	12125-02-9	1.00000	0.00049	None
Clearal 268	ChemStream	Biocide	Non-hazardous substances	Proprietary	90.00000	0.01293	None
			Glutaraldehyde	111-30-8	20.00000	0.00287	None
			Alkyl dimethyl benzyl ammonium chloride	68391-01-5	3.00000	0.00043	None
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00043	None
StimSTREAM SC-398	ChemStream	Scale Inhibitor	Non-hazardous substances	Proprietary	90.00000	0.00850	None

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			Bis(HexaMethylene Triamine Penta(Methylene Phosphonic Acid)(BHMT)	34690-00-1	10.00000	0.00094	None
Hydrochloric Acid (HCl)	USWS	Acid					
			Hydrogen Chloride	7647-01-0	15.00000	0.00260	None
AI-303	USWS	Acid Corrosion Inhibitor					
			Ethylene glycol	107-21-1	40.00000	0.00001	None
			Formic Acid	64-18-6	20.00000	0.00000	None
			Cinnamaldehyde	104-55-2	20.00000	0.00000	None
			Butyl Cellosolve	111-76-2	20.00000	0.00000	None
			Polyether	Proprietary	10.00000	0.00000	None
			Acetophenone, thiourea, formaldehyde polymer	68527-49-1	5.00000	0.00000	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					
			Non-hazardous substances	Proprietary	90.00000	0.01293	
			Petroleum Distillate	64742-47-8	20.00000	0.00982	
			Non-hazardous substances	Proprietary	90.00000	0.00850	
			Alcohols, C12-16, ethoxylated	68551-12-2	2.00000	0.00098	
			Oleic Acid Diethanolamide	93-83-4	2.00000	0.00098	
			Ammonium chloride ((NH4)Cl)	12125-02-9	1.00000	0.00049	
			Alkyl dimethyl benzyl ammonium chloride	68391-01-5	3.00000	0.00043	
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000	0.00043	
			Formic Acid	64-18-6	20.00000	0.00000	
			Butyl Cellosolve	111-76-2	20.00000	0.00000	
			Cinnamaldehyde	104-55-2	20.00000	0.00000	
			Polyether	Proprietary	10.00000	0.00000	
			Acetophenone, thiourea, formaldehyde polymer	68527-49-1	5.00000	0.00000	

* 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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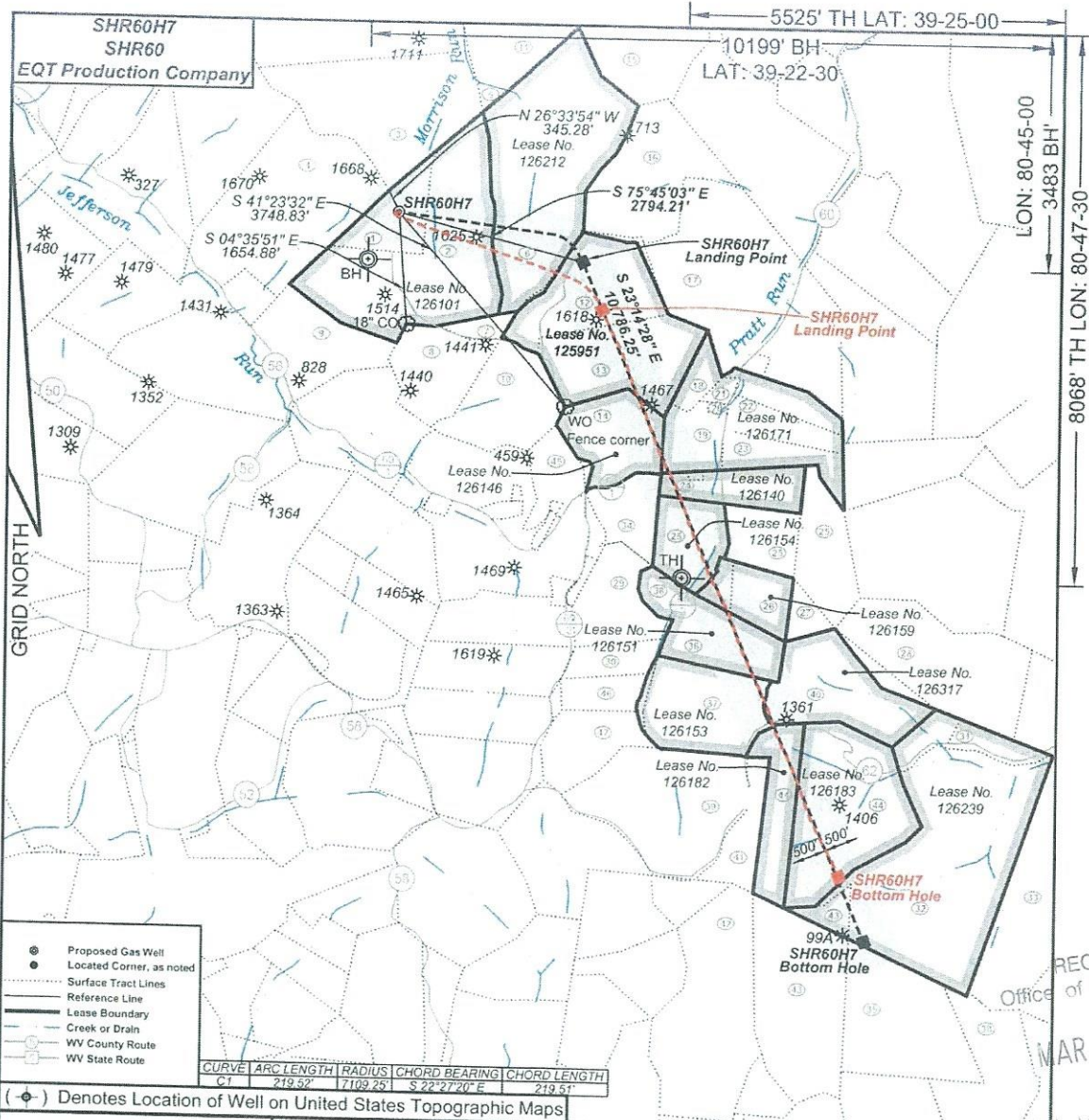
44	Stage	Successful	Stimulation	Scale Inhibitor	Scale Inhibitor	StimSTREAM SC-398	ChemStream	38	gal
45	Stage	Successful	Wireline	Scale Inhibitor	Scale Inhibitor	StimSTREAM SC-398	ChemStream	0.6	gal
45	Stage	Successful	Stimulation	Scale Inhibitor	Scale Inhibitor	StimSTREAM SC-398	ChemStream	38	gal
46	Stage	Successful	Wireline	Scale Inhibitor	Scale Inhibitor	StimSTREAM SC-398	ChemStream	0.6	gal
46	Stage	Successful	Stimulation	Scale Inhibitor	Scale Inhibitor	StimSTREAM SC-398	ChemStream	38	gal
47	Stage	Successful	Wireline	Scale Inhibitor	Scale Inhibitor	StimSTREAM SC-398	ChemStream	0.5	gal
47	Stage	Successful	Stimulation	Scale Inhibitor	Scale Inhibitor	StimSTREAM SC-398	ChemStream	38	gal

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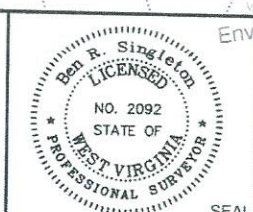
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I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

Ben R. Singleton
P.S. 2092



FILE NO: 208-13
DRAWING NO: 208-13 SHR60H7
SCALE: 1" = 2000'
MINIMUM DEGREE OF ACCURACY: 1:2500
PROVEN SOURCE OF ELEVATION: NGS CORS Station

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OIL AND GAS DIVISION

DATE: May 1 20 19
OPERATOR'S WELL NO.: SHR60H7
API WELL NO
47 - 095 - 02543
STATE COUNTY PERMIT

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

LOCATION: ELEVATION: As-Built 1,011' WATERSHED Morrison Run of McElroy Creek QUADRANGLE: Shirley

DISTRICT: McElroy COUNTY: Tyler

SURFACE OWNER: Vivian J. Wells, et al. ACREAGE: 35.38
ROYALTY OWNER: George Birklein, et al. LEASE NO: 126101 ACREAGE: 240

PROPOSED WORK: DRILL CONVERT DRILL DEEPER FRACTURE OR STIMULATE PLUG OFF OLD FORMATION
 PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY)
 PLUG AND ABANDON CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6596

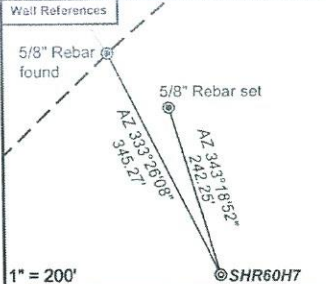
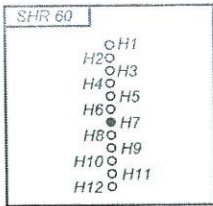
WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson
ADDRESS: 2400 Ansys Drive, Suite 200 ADDRESS: 115 Professional Place PO Box 280
Canonsburg, PA 15317 Bridgeport, WV 26330

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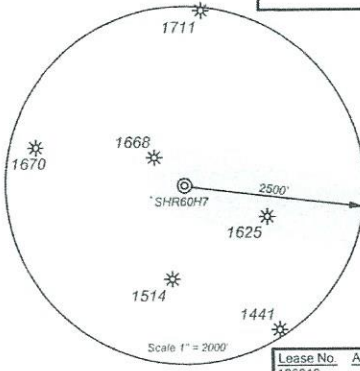
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SHR60H7
SHR60
EQT Production Company

Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	18	12	Tyler	McElroy	Hanna A. Underwood Estate	35.00
2	18	13	Tyler	McElroy	Blaine Underwood Estate, et al.	104.73
3	18	9	Tyler	McElroy	Lawrence Ravburn, et al.	100.00
4	18	7.1	Tyler	McElroy	Patricia A. Keys, et al.	102.31
5	18	10	Tyler	McElroy	Susan Spencer	2.92
6	18	11	Tyler	McElroy	Susan Spencer	132.00
7	18	15	Tyler	McElroy	Susan Spencer	8.00
8	18	16	Tyler	McElroy	Donald E. Bible Sr.	35.50
9	18	23	Tyler	McElroy	Clyde Seckman Estate	111.75
10	18	17	Tyler	McElroy	Allen Dale Farnash, et al.	43.00
11	15	32	Tyler	McElroy	Betty June Yousse	360.00
12	18	14	Tyler	McElroy	Terry J. Cumberledge, et al.	54.81
13	18	18	Tyler	McElroy	Terry J. Cumberledge, et al.	49.87
14	18	19	Tyler	McElroy	John Paul Davis	35.00
15	19	1.0	Tyler	McElroy	Susan L. Spencer	53.00
16	19	49	Tyler	McElroy	James Edward Cumberledge, et al.	57.50
17	19	50.0	Tyler	McElroy	Ronald L. Cumberledge	123.15
18	19	70.1	Tyler	McElroy	Edith J. Pratt	8.77
19	19	72	Tyler	McElroy	Terry A. Cumberledge, et al.	18.09
20	19	79.0	Tyler	McElroy	Terry J. & Cheryl A. Cumberledge	1.13
21	19	71.0	Tyler	McElroy	Edith J. Pratt	3.30
22	19	70.0	Tyler	McElroy	Ronald L. Cumberledge	13.99
23	19	74	Tyler	McElroy	Randall P. Clugson II	19.00
24	19	75	Tyler	McElroy	Roger L. Pratt	24.19
25	19	78	Tyler	McElroy	Roger L. Pratt, et al.	43.81
26	20	1.2	Tyler	McElroy	James B. Scott	40.00
27	22	2	Tyler	McElroy	June Pratt	7.00
28	22	4	Tyler	McElroy	Jacqueline L. Wickman Trust	72.83
29	22	20	Tyler	McElroy	James B. Scott	30.00
30	21	18	Tyler	McElroy	Richard E. & Barbara A. Mullis	20.90
31	22	13.1	Tyler	McElroy	Jacqueline L. Wickman, et al.	9.88
32	22	13	Tyler	McElroy	Warren C. Putman	147.77
33	2	11	Doddridge	West Union	Mark Siegenfuss	99.94
34	19	80	Tyler	McElroy	John Paul Davis	25.00
35	2	2	Doddridge	West Union	Jason J. Boggs	66.87
36	21	21	Tyler	McElroy	James B. Scott	30.00
37	22	19	Tyler	McElroy	Bordena Rose, et al.	55.00
38	4	1	Doddridge	Grant	Warren C. Putman	77.00
39	22	18	Tyler	McElroy	Bruce W. Boland	86.75
40	22	3	Tyler	McElroy	Jacqueline Wickman, et al.	71.62
41	22	18.1	Tyler	McElroy	Bruce W. Boland	18.91
42	2	18	Doddridge	West Union	David R. & Elizabeth A. Beveridge	125.00
43	2	1	Doddridge	West Union	James M. Petrovich, et al.	70.00
44	22	14	Tyler	McElroy	Paul Dean Steinman Jr. & Marc L. Steinman	126.00
45	16	20.2	Tyler	McElroy	Richard E. Hanson	10.96
46	21	19	Tyler	McElroy	Richard E. & Barbara A. Mullis	20.00
47	21	21	Tyler	McElroy	James B. Scott	30.00



As-Drilled Well Information:
SHR60H7 coordinates are
NAD 27 N: 328,492.21 E: 1,629,439.28
NAD 83 UTM N: 4,360,580.01 E: 516,269.36
SHR60H7 Landing Point coordinates are
NAD 27 N: 327,106.92 E: 1,632,447.01
NAD 83 UTM N: 4,360,173.29 E: 517,192.71
SHR60H7 Bottom Hole coordinates are
NAD 27 N: 318,845.75 E: 1,636,024.20
NAD 83 UTM N: 4,357,674.71 E: 518,324.50
West Virginia Coordinate system of 1927 (North Zone)
based upon Differential GPS Measurements.
Plat orientation, corner and well ties are based upon
the grid north meridian.
Well location references are based upon the grid north
meridian.
UTM coordinates are NAD83, Zone 17, Meters.

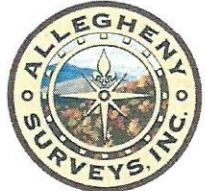


Proposed Gas Well
Located Corner, as noted
Surface Tract Lines
Reference Line
Lease Boundary
Creek or Drain
WV County Route
WV State Route

Parcel No.	Acres	Owner
05-18-11	132	Susan L. Spencer

Lease No.	Acres	Owner
126212	131	Susan L. Spencer
125951	225	Mona R. Cumberledge, et al.
126146	35	Glucie Frances Bonnell, et al.
126171	78	Daniel G. Cumberledge, et al.
126140	25	Roger L. Pratt
126154	28	Regina Jo Gillespie, et al.
126159	25	Nick A. Demoss, et al.
126151	30	Dorothy H. Bode, et al.
126153	55	Jeffrey T. Hefflin, et al.
126317	62	Donna K. Fahey, et al.
126182	38	Robert J. Nichols, et al.
126183	89	Robert J. Nichols, et al.
126239	234	Paul Tallman, et al.

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WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson
ADDRESS: 2400 Ansys Drive, Suite 200 ADDRESS: 115 Professional Place PO Box 280
Canonsburg, PA 15317 Bridgeport, WV 26330

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