

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

MAY 04 2016

API 47-103-03109 County Wetzel District Grant  
Quad Big Run Pad Name Big190 Field/Pool Name N/A  
Farm name Coastal Forest Resources Company Well Number 513926  
Operator (as registered with the OOG) EQT Production Company  
Address 625 Liberty Ave. EQT Plaza, Suite 1700 City Pittsburgh State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,378,172.75 Easting 533,896.23  
Landing Point of Curve Northing 4,378,121.26 Easting 533,658.01  
Bottom Hole Northing 4,376,400.98 Easting 534,094.25

Elevation (ft) 1476 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) Water base Mud 14.0 ppg barium sulfate, sodium chloride, xanthan gum, polyanionic cellulose, modified starch, sodium hydroxide, phosphonates and alkyl phosphates, calcium hydroxide, partially hydrolyzed polyacrylamide/polyacrylate, potassium chloride, sodium carbonate, ground walnut shells, alcohol and modified fatty acid, ferrochrome lignosulfonate, calcium carbonate, fibrous cellulose  
Synthetic Oil Base Mud 17.5ppg, aliphatic based non-aqueous drilling fluid, barium sulfate, calcium chloride, organophylic clay, quaternary ammonium clay, gilsonite, blended emulsifier, wetting agent, blended graphite, hydrated lime, calcium carbonate, ground walnut shells, fibrous cellulose.

Date permit issued 8/28/2015 Date drilling commenced 9/3/2015 Date drilling ceased 12/24/2015  
Date completion activities began 1/24/2016 Date completion activities ceased 2/8/2016  
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 401', 458' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 2243' 2368' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 410, 1219', 1237' Cavern(s) encountered (Y/N) depths N

Is coal being mined in area (Y/N) N

**APPROVED**

NAME: Derek M. Hryhor  
DATE: 5/19/16

Reviewed by:

DHH  
AX-05/27/2016

API 47-103 - 03109

Farm name Coastal Forest Resources Company Well number 513926

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	60'	NEW	82.6# A-252	N/A	Y
Surface	24	18 5/8"	874'	NEW	87.5# J-55	410'	Y
Coal							
Intermediate 1	17 1/2"	13 3/8"	2761'	NEW	68# J-55	1123'	Y
Intermediate 2	12 1/4"	9 5/8"	11940'	NEW	47# HC EIP-110	N/A	N
Intermediate 3							
Production	8 1/2"	5 1/2"	19973'	NEW	23# HC EIP-110	N/A	N
Tubing							
Packer type and depth set							

Comment Details Intermediate 2 Cement job has a calculated TOC of 2600' MD which is 500' above the shallowest producing formation in the area. No issues during cement job  
Production Cement job has a calculated TOC of 11000' MD which is 1000' above our KOP which is greater than 500' above the producing formation. No issues during cement job

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	CLASS A	73	15.6	1.18	86.14	0	8
Surface	CLASS A	1400	15.6	1.19	1666.00	0	8
Coal							
Intermediate 1	CLASS A	2245	15.6	1.18	2649.10	0	8
Intermediate 2	Class H / Class H	1150 / 1140	13.5 / 15.6	1.66 / 1.22	3299.80	2600	8
Intermediate 3							
Production	Class G	1265	18.5	1.71	2163.15	11000'	8
Tubing							

Drillers TD (ft) 19998'      Loggers TD (ft) 13365'  
 Deepest formation penetrated Trenton      Plug back to (ft) 7542' for Sidetrack Plug Back & 11840' for Pilot Hole Plug Back  
 Plug back procedure For Sidetrack Plug Back: blew hole dry and TOH #8677', #7971'. Pumped 3bbls of fresh water and 240sks (53bbls) of Class A @ 14.4ppg/1.24 yield for an isolation plug. TOH #7971', #7329' and pumped, 2bbls of fresh water ahead, 480 sks (80bbls) of Class H @ 17.5 ppg, .94 yield for a kick plug. For Pilot Hole Plug back: Circ. bottoms up @ 13353' while R/U Halliburton and mix spacer. Pump 50 bbls 15ppg tuned spacer, 90bbl 16.8ppg Densecem drop dart, 3bbl 16.8 ppg Densecem, 1.02yld, 4 gal/sk., 20 bbl 15ppg tuned spacer. Displace with 190bbl 14ppg OBM. Full returns during cement job.

Kick off depth (ft) 12050'

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: (3) 1 every 150' from 872' to 119'

INTERMEDIATE 1: (12) 1 every 120' from 2759' to 312'

INTERMEDIATE 2: (25) 1 every 500' from 11895' to 80'

PRODUCTION: (220) 1 every joint from 19930 to 10963'

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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 \_\_\_\_\_





API 47- 103 - 03109 Farm name Coastal Forest Resources Company Well number 513926

Drilling Contractor Orion Drilling Company  
Address 601 Aviation Way City Reynoldsville State PA Zip 15851

Logging Company Baker Hughes  
Address 370 Westec Dr. City Mt Pleasant State PA Zip 15666

Logging Company Pro Directional  
Address 750 Conroe Park North Dr. City Conroe State TX Zip 77303

Cementing Company Halliburton Energy Services  
Address 121 Champion Way City Canonsburg State PA Zip 15317

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## Well #513926 Final Formations API #47-103-03109

Formation Name	Final Top MD (ftGL) (ft)	Final Top TVD (ft)	Final Btm MD (ftGL) (ft)	Final Btm TVD (ft)
SAND/SHALE	1	1	410	410
COAL	410	410	416	416
SAND/SHALE	416	416	1,219.00	1,218.90
COAL	1,219.00	1,218.90	1,226.00	1,225.90
SAND/SHALE	1,226.00	1,225.90	1,237.00	1,236.90
COAL	1,237.00	1,236.90	1,243.00	1,242.90
SAND/SHALE	1,243.00	1,242.90	2,261.00	2,260.60
MAXTON	2,261.00	2,260.60	2,417.00	2,416.20
BIG LIME	2,417.00	2,416.20	2,547.00	2,545.90
BIG INJUN	2,547.00	2,545.90	2,989.00	2,986.90
Gantz	2,989.00	2,986.90	3,026.00	3,023.90
Fifty Foot	3,026.00	3,023.90	3,121.00	3,118.80
Thirty Foot	3,121.00	3,118.80	3,186.00	3,183.80
Gordon	3,186.00	3,183.80	3,266.00	3,263.80
Fourth Sand	3,266.00	3,263.80	3,496.00	3,493.80
BAYARD	3,496.00	3,493.80	3,877.00	3,874.70
Warren	3,877.00	3,874.70	4,076.00	4,073.70
Speechley	4,076.00	4,073.70	4,903.00	4,900.70
Riley	4,903.00	4,900.70	5,548.00	5,545.60
Benson	5,548.00	5,545.60	5,923.00	5,920.50
Alexander	5,923.00	5,920.50	7,071.00	7,068.40
Rhinestreet	7,071.00	7,068.40	7,107.00	7,104.40
Sonyea	7,107.00	7,104.40	7,273.00	7,270.40
Middlesex	7,273.00	7,270.40	7,319.00	7,316.40
Genesee	7,319.00	7,316.40	7,393.00	7,390.40
Geneseo	7,393.00	7,390.40	7,427.00	7,424.40
Tully	7,427.00	7,424.40	7,443.00	7,440.40
Hamilton	7,443.00	7,440.40	7,538.00	7,535.40
Marcellus	7,538.00	7,535.40	7,604.00	7,601.40
Onondaga	7,604.00	7,601.40	7,843.00	7,840.40
Oriskany	7,843.00	7,840.40	7,942.00	7,939.40
Mandata	7,942.00	7,939.40	8,001.00	7,998.40
Helderberg	8,001.00	7,998.40	8,366.00	8,363.40
Salina	8,366.00	8,363.40	9,370.00	9,365.90
LOCKPORT	9,370.00	9,365.90	9,832.00	9,827.80
ROSE HILL	9,832.00	9,827.80	10,295.00	10,283.00
PACKER SHELL	10,295.00	10,283.00	10,452.00	10,430.80
TUSCORORA	10,452.00	10,430.80	10,592.00	10,560.30
QUEENSTON	10,592.00	10,560.30	11,566.00	11,469.90
REEDSVILLE	11,566.00	11,469.90	13,105.00	12,747.00
UTICA	13,105.00	12,747.00	13,745.00	12,851.10
POINT PLEASANT	13,745.00	12,851.10		

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**513926 47-103-03109-0000 - Perforations**

<b>Stage Number</b>	<b>Perforation Date</b>	<b>Top Perf Depth (ftKB)</b>	<b>Bottom Perf Depth (ftKB)</b>	<b>Number of Shots</b>	<b>Formation</b>
<b>Initiation Sleeve</b>	1/8/2016	19,971	19,973	10	POINT PLEASANT
<b>1</b>	1/25/2016	19,758	19,850	42	POINT PLEASANT
<b>2</b>	1/25/2016	19,578	19,700	42	POINT PLEASANT
<b>3</b>	1/26/2016	19,402	19,520	42	POINT PLEASANT
<b>4</b>	1/26/2016	19,218	19,340	42	POINT PLEASANT
<b>5</b>	1/26/2016	19,040	19,162	42	POINT PLEASANT
<b>6</b>	1/28/2016	18,858	18,980	42	POINT PLEASANT
<b>7</b>	1/29/2016	18,678	18,800	42	POINT PLEASANT
<b>8</b>	1/29/2016	18,498	18,620	42	POINT PLEASANT
<b>9</b>	1/30/2016	18,318	18,440	42	POINT PLEASANT
<b>10</b>	1/30/2016	18,138	18,258	42	POINT PLEASANT
<b>11</b>	1/30/2016	17,958	18,080	42	POINT PLEASANT
<b>12</b>	1/31/2016	17,778	17,900	42	POINT PLEASANT
<b>13</b>	1/31/2016	17,598	17,720	42	POINT PLEASANT
<b>14</b>	1/31/2016	17,418	17,540	42	POINT PLEASANT
<b>15</b>	1/31/2016	17,238	17,360	42	POINT PLEASANT
<b>16</b>	2/1/2016	17,058	17,180	42	POINT PLEASANT
<b>17</b>	2/1/2016	16,878	17,000	42	POINT PLEASANT
<b>18</b>	2/2/2016	16,698	16,820	42	POINT PLEASANT
<b>19</b>	2/2/2016	16,518	16,640	42	POINT PLEASANT
<b>20</b>	2/3/2016	16,342	16,460	42	POINT PLEASANT
<b>21</b>	2/3/2016	16,158	16,280	42	POINT PLEASANT
<b>22</b>	2/3/2016	15,978	16,100	42	POINT PLEASANT
<b>23</b>	2/4/2016	15,798	15,920	42	POINT PLEASANT
<b>24</b>	2/4/2016	15,618	15,740	42	POINT PLEASANT
<b>25</b>	2/5/2016	15,438	15,560	42	POINT PLEASANT
<b>26</b>	2/5/2016	15,258	15,380	42	POINT PLEASANT
<b>27</b>	2/5/2016	15,078	15,200	42	POINT PLEASANT
<b>28</b>	2/6/2016	14,898	15,020	42	POINT PLEASANT
<b>29</b>	2/6/2016	14,718	14,840	42	POINT PLEASANT
<b>30</b>	2/6/2016	14,540	14,662	42	POINT PLEASANT
<b>31</b>	2/7/2016	14,358	14,480	42	POINT PLEASANT
<b>32</b>	2/7/2016	14,178	14,300	42	POINT PLEASANT
<b>33</b>	2/8/2016	13,998	14,120	42	POINT PLEASANT
<b>34</b>	2/8/2016	13,818	13,940	42	POINT PLEASANT
<b>35</b>	2/8/2016	13,638	13,760	42	POINT PLEASANT

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**513926-47-103-03109-0000 - Stimulated Stages**

<b>Stage Number</b>	<b>Stimulation Date</b>	<b>Ave Pump Rate (BPM)</b>	<b>Ave Treatment Pressure (PSI)</b>	<b>Max Breakdown Pressure (PSI)</b>	<b>ISIP (PSI)</b>	<b>Amount of Proppant (lbs)</b>	<b>Amount of Water (bbls)</b>	<b>Amount of Nitrogen/other (units)</b>
Initiation Sleeve	1/24/2016	13	12,540	14,230	10,978	0	1,824	0
1	1/25/2016	89	13,591	14,029	8,547	395,393.00	10,777	0
2	1/26/2016	89.8	13,506	13,855	8,621	403,089.00	10,355	0
3	1/26/2016	90.8	13,505	13,902	8,850	398,772.00	10,185	0
4	1/26/2016	88.67	13,395	13,929	9,308	401,852.00	10,577	0
5	1/28/2016	86.92	13,282	14,064	8,926	397,744.00	11,834	0
6	1/28/2016	87.8	13,342	13,978	9,418	400,545.00	10,398	0
7	1/29/2016	89.48	13,586	13,978	9,280	395,240.00	10,469	0
8	1/29/2016	89.13	13,342	13,886	9,243	402,950.00	10,440	0
9	1/30/2016	89.93	13,332	14,017	9,085	399,517.00	10,420	0
10	1/30/2016	90.22	13,272	13,909	8,954	397,551.00	10,062	0
11	1/30/2016	90.02	13,127	13,895	8,724	402,514.00	10,163	0
12	1/31/2016	88.72	13,207	13,918	8,963	355,026.00	9,616	0
13	1/31/2016	90.19	13,187	13,893	9,239	386,500.00	10,018	0
14	1/31/2016	90.21	12,959	13,572	8,833	399,217.00	10,057	0
15	2/1/2016	89.27	13,192	13,989	8,908	393,131.00	10,089	0
16	2/1/2016	90.57	13,175	14,135	9,253	397,543.00	10,146	0
17	2/1/2016	89.55	13,075	13,745	9,169	397,976.00	9,999	0
18	2/2/2016	89.89	13,192	13,949	9,177	398,606.00	10,152	0
19	2/2/2016	90.27	12,985	13,694	9,090	398,107.00	9,980	0
20	2/3/2016	87.1	12,797	14,027	9,493	395,334.00	12,777	0
21	2/3/2016	90.17	12,731	13,800	9,525	394,681.00	9,977	0
22	2/3/2016	90.25	12,648	13,629	9,394	409,575.00	10,069	0
23	2/4/2016	89.64	12,401	13,435	9,374	392,740.00	10,038	0
24	2/4/2016	90.19	12,578	13,989	9,125	396,161.00	10,004	0
25	2/5/2016	90.44	12,669	13,698	9,234	396,491.00	9,951	0
26	2/5/2016	90.14	12,284	13,966	8,826	395,915.00	9,872	0
27	2/5/2016	89.93	12,176	13,884	9,037	397,540.00	9,912	0
28	2/6/2016	90.05	12,214	13,182	9,072	399,539.00	9,972	0
29	2/6/2016	90.34	12,135	13,558	9,074	397,787.00	9,879	0
30	2/6/2016	89.6	12,167	13,202	9,072	400,821.00	10,829	0
31	2/7/2016	90.18	12,099	13,533	8,576	397,640.00	10,004	0
32	2/7/2016	88.9	12,077	13,966	8,884	396,834.00	9,653	0
33	2/8/2016	90.47	12,031	13,893	9,028	397,519.00	9,869	0
34	2/8/2016	90.66	12,103	13,659	8,659	398,456.00	9,871	0
35	2/8/2016	90.86	12,134	13,267	8,613	392,937.00	9,908	0

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/24/2016
Job End Date:	2/8/2016
State:	West Virginia
County:	Wetzel
API Number:	47-103-03109-00-00
Operator Name:	EQT Production
Well Name and Number:	513926
Longitude:	-80.60565000
Latitude:	39.55248300
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	12,851
Total Base Water Volume (gal):	15,126,023
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	Halliburton	Carrier/Base Fluid	Water	7732-18-5	100.00000	89.53826	None
Sand (Proppant)	Halliburton	Proppant	Silica Substrate	14808-60-7	100.00000	9.84659	None
Hydrochloric Acid (15%)	Halliburton	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.07031	None
FR-76	Halliburton	Friction reducer	Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02089	None
			Inorganic salt	Proprietary	30.00000	0.02089	None
CaCl	Halliburton	Additive	Calcium chloride	10043-52-4	100.00000	0.03559	None
			Sodium chloride	7647-14-5	5.00000	0.00178	None
			Potassium chloride	7447-40-7	5.00000	0.00178	None
FDP-M1075-12	Halliburton	Scale Inhibitor	Ethylene glycol	107-21-1	60.00000	0.01433	None
WG-36	Halliburton	Gelling agent	Guar Gum	9000-30-0	100.00000	0.01295	None
MC B- 8632	Halliburton	Biocide					

			Isopropanol	67-63-0	60.00000	0.00125	None
			Glutaraldehyde	111-30-8	30.00000	0.00062	None
			Didecyldimethylammonium chloride	7173-51-5	5.00000	0.00010	None
HAI-OS Acid Inhibitor	Halliburton	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00047	None
			Modified thiourea polymer	Proprietary	30.00000	0.00023	None
			Ethoxylated alcohols	Proprietary	30.00000	0.00023	None
			Propargyl alcohol	107-19-7	10.00000	0.00008	None
LCA-1	Halliburton	Solvent					
			Paraffinic solvent	Proprietary	100.00000	0.00088	None
SP Breaker	Halliburton	Breaker					
			Sodium Persulfate	7775-27-1	100.00000	0.00064	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.

\* 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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Formation Name	Final Top MD (ftGL) (ft)	Final Top TVD (ft)	Final Btm MD (ftGL) (ft)	Final Btm TVD (ft)
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BIG INJUN	2,547.00	2,545.90	2,989.00	2,986.90
Gantz	2,989.00	2,986.90	3,026.00	3,023.90
Fifty Foot	3,026.00	3,023.90	3,121.00	3,118.80
Thirty Foot	3,121.00	3,118.80	3,186.00	3,183.80
Gordon	3,186.00	3,183.80	3,266.00	3,263.80
Fourth Sand	3,266.00	3,263.80	3,496.00	3,493.80
BAYARD	3,496.00	3,493.80	3,877.00	3,874.70
Warren	3,877.00	3,874.70	4,076.00	4,073.70
Speechley	4,076.00	4,073.70	4,903.00	4,900.70
Riley	4,903.00	4,900.70	5,548.00	5,545.60
Benson	5,548.00	5,545.60	5,923.00	5,920.50
Alexander	5,923.00	5,920.50	7,071.00	7,068.40
Rhinestreet	7,071.00	7,068.40	7,107.00	7,104.40
Sonyea	7,107.00	7,104.40	7,273.00	7,270.40
Middlesex	7,273.00	7,270.40	7,319.00	7,316.40
Genesee	7,319.00	7,316.40	7,393.00	7,390.40
Geneseo	7,393.00	7,390.40	7,427.00	7,424.40
Tully	7,427.00	7,424.40	7,443.00	7,440.40
Hamilton	7,443.00	7,440.40	7,538.00	7,535.40
Marcellus	7,538.00	7,535.40	7,604.00	7,601.40
Onondaga	7,604.00	7,601.40	7,843.00	7,840.40
Oriskany	7,843.00	7,840.40	7,942.00	7,939.40
Mandata	7,942.00	7,939.40	8,001.00	7,998.40
Helderberg	8,001.00	7,998.40	8,366.00	8,363.40
Salina	8,366.00	8,363.40	9,370.00	9,365.90
LOCKPORT	9,370.00	9,365.90	9,832.00	9,827.80
ROSE HILL	9,832.00	9,827.80	10,295.00	10,283.00
PACKER SHELL	10,295.00	10,283.00	10,452.00	10,430.80
TUSCORORA	10,452.00	10,430.80	10,592.00	10,560.30
QUEENSTON	10,592.00	10,560.30	11,566.00	11,469.90
REEDSVILLE	11,566.00	11,469.90	13,105.00	12,747.00
UTICA	13,105.00	12,747.00	13,745.00	12,851.10
POINT PLEASANT	13,745.00	12,851.10		

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**513926 47-103-03109-0000 - Perforations**

<b>Stage Number</b>	<b>Perforation Date</b>	<b>Top Perf Depth (ftKB)</b>	<b>Bottom Perf Depth (ftKB)</b>	<b>Number of Shots</b>	<b>Formation</b>
<b>Initiation Sleeve</b>	1/8/2016	19,971	19,973	10	POINT PLEASANT
<b>1</b>	1/25/2016	19,758	19,850	42	POINT PLEASANT
<b>2</b>	1/25/2016	19,578	19,700	42	POINT PLEASANT
<b>3</b>	1/26/2016	19,402	19,520	42	POINT PLEASANT
<b>4</b>	1/26/2016	19,218	19,340	42	POINT PLEASANT
<b>5</b>	1/26/2016	19,040	19,162	42	POINT PLEASANT
<b>6</b>	1/28/2016	18,858	18,980	42	POINT PLEASANT
<b>7</b>	1/29/2016	18,678	18,800	42	POINT PLEASANT
<b>8</b>	1/29/2016	18,498	18,620	42	POINT PLEASANT
<b>9</b>	1/30/2016	18,318	18,440	42	POINT PLEASANT
<b>10</b>	1/30/2016	18,138	18,258	42	POINT PLEASANT
<b>11</b>	1/30/2016	17,958	18,080	42	POINT PLEASANT
<b>12</b>	1/31/2016	17,778	17,900	42	POINT PLEASANT
<b>13</b>	1/31/2016	17,598	17,720	42	POINT PLEASANT
<b>14</b>	1/31/2016	17,418	17,540	42	POINT PLEASANT
<b>15</b>	1/31/2016	17,238	17,360	42	POINT PLEASANT
<b>16</b>	2/1/2016	17,058	17,180	42	POINT PLEASANT
<b>17</b>	2/1/2016	16,878	17,000	42	POINT PLEASANT
<b>18</b>	2/2/2016	16,698	16,820	42	POINT PLEASANT
<b>19</b>	2/2/2016	16,518	16,640	42	POINT PLEASANT
<b>20</b>	2/3/2016	16,342	16,460	42	POINT PLEASANT
<b>21</b>	2/3/2016	16,158	16,280	42	POINT PLEASANT
<b>22</b>	2/3/2016	15,978	16,100	42	POINT PLEASANT
<b>23</b>	2/4/2016	15,798	15,920	42	POINT PLEASANT
<b>24</b>	2/4/2016	15,618	15,740	42	POINT PLEASANT
<b>25</b>	2/5/2016	15,438	15,560	42	POINT PLEASANT
<b>26</b>	2/5/2016	15,258	15,380	42	POINT PLEASANT
<b>27</b>	2/5/2016	15,078	15,200	42	POINT PLEASANT
<b>28</b>	2/6/2016	14,898	15,020	42	POINT PLEASANT
<b>29</b>	2/6/2016	14,718	14,840	42	POINT PLEASANT
<b>30</b>	2/6/2016	14,540	14,662	42	POINT PLEASANT
<b>31</b>	2/7/2016	14,358	14,480	42	POINT PLEASANT
<b>32</b>	2/7/2016	14,178	14,300	42	POINT PLEASANT
<b>33</b>	2/8/2016	13,998	14,120	42	POINT PLEASANT
<b>34</b>	2/8/2016	13,818	13,940	42	POINT PLEASANT
<b>35</b>	2/8/2016	13,638	13,760	42	POINT PLEASANT

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**513926-47-103-03109-0000 - Stimulated Stages**

<b>Stage Number</b>	<b>Stimulation Date</b>	<b>Ave Pump Rate (BPM)</b>	<b>Ave Treatment Pressure (PSI)</b>	<b>Max Breakdown Pressure (PSI)</b>	<b>ISIP (PSI)</b>	<b>Amount of Proppant (lbs)</b>	<b>Amount of Water (bbls)</b>	<b>Amount of Nitrogen/other (units)</b>
Initiation Sleeve	1/24/2016	13	12,540	14,230	10,978	0	1,824	0
1	1/25/2016	89	13,591	14,029	8,547	395,393.00	10,777	0
2	1/26/2016	89.8	13,506	13,855	8,621	403,089.00	10,355	0
3	1/26/2016	90.8	13,505	13,902	8,850	398,772.00	10,185	0
4	1/26/2016	88.67	13,395	13,929	9,308	401,852.00	10,577	0
5	1/28/2016	86.92	13,282	14,064	8,926	397,744.00	11,834	0
6	1/28/2016	87.8	13,342	13,978	9,418	400,545.00	10,398	0
7	1/29/2016	89.48	13,586	13,978	9,280	395,240.00	10,469	0
8	1/29/2016	89.13	13,342	13,886	9,243	402,950.00	10,440	0
9	1/30/2016	89.93	13,332	14,017	9,085	399,517.00	10,420	0
10	1/30/2016	90.22	13,272	13,909	8,954	397,551.00	10,062	0
11	1/30/2016	90.02	13,127	13,895	8,724	402,514.00	10,163	0
12	1/31/2016	88.72	13,207	13,918	8,963	355,026.00	9,616	0
13	1/31/2016	90.19	13,187	13,893	9,239	386,500.00	10,018	0
14	1/31/2016	90.21	12,959	13,572	8,833	399,217.00	10,057	0
15	2/1/2016	89.27	13,192	13,989	8,908	393,131.00	10,089	0
16	2/1/2016	90.57	13,175	14,135	9,253	397,543.00	10,146	0
17	2/1/2016	89.55	13,075	13,745	9,169	397,976.00	9,999	0
18	2/2/2016	89.89	13,192	13,949	9,177	398,606.00	10,152	0
19	2/2/2016	90.27	12,985	13,694	9,090	398,107.00	9,980	0
20	2/3/2016	87.1	12,797	14,027	9,493	395,334.00	12,777	0
21	2/3/2016	90.17	12,731	13,800	9,525	394,681.00	9,977	0
22	2/3/2016	90.25	12,648	13,629	9,394	409,575.00	10,069	0
23	2/4/2016	89.64	12,401	13,435	9,374	392,740.00	10,038	0
24	2/4/2016	90.19	12,578	13,989	9,125	396,161.00	10,004	0
25	2/5/2016	90.44	12,669	13,698	9,234	396,491.00	9,951	0
26	2/5/2016	90.14	12,284	13,966	8,826	395,915.00	9,872	0
27	2/5/2016	89.93	12,176	13,884	9,037	397,540.00	9,912	0
28	2/6/2016	90.05	12,214	13,182	9,072	399,539.00	9,972	0
29	2/6/2016	90.34	12,135	13,558	9,074	397,787.00	9,879	0
30	2/6/2016	89.6	12,167	13,202	9,072	400,821.00	10,829	0
31	2/7/2016	90.18	12,099	13,533	8,576	397,640.00	10,004	0
32	2/7/2016	88.9	12,077	13,966	8,884	396,834.00	9,653	0
33	2/8/2016	90.47	12,031	13,893	9,028	397,519.00	9,869	0
34	2/8/2016	90.66	12,103	13,659	8,659	398,456.00	9,871	0
35	2/8/2016	90.86	12,134	13,267	8,613	392,937.00	9,908	0

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/24/2016
Job End Date:	2/8/2016
State:	West Virginia
County:	Wetzel
API Number:	47-103-03109-00-00
Operator Name:	EQT Production
Well Name and Number:	513926
Longitude:	-80.60565000
Latitude:	39.55248300
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	12,851
Total Base Water Volume (gal):	15,126,023
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	Halliburton	Carrier/Base Fluid	Water	7732-18-5	100.00000	89.53826	None
Sand (Proppant)	Halliburton	Proppant	Silica Substrate	14808-60-7	100.00000	9.84659	None
Hydrochloric Acid (15%)	Halliburton	Acidizing	Hydrochloric Acid	7647-01-0	15.00000	0.07031	None
FR-76	Halliburton	Friction reducer	Hydrotreated light petroleum distillate	64742-47-8	30.00000	0.02089	None
			Inorganic salt	Proprietary	30.00000	0.02089	None
CaCl	Halliburton	Additive	Calcium chloride	10043-52-4	100.00000	0.03559	None
			Sodium chloride	7647-14-5	5.00000	0.00178	None
			Potassium chloride	7447-40-7	5.00000	0.00178	None
FDP-M1075-12	Halliburton	Scale Inhibitor	Ethylene glycol	107-21-1	60.00000	0.01433	None
WG-36	Halliburton	Gelling agent	Guar Gum	9000-30-0	100.00000	0.01295	None
MC B- 8632	Halliburton	Biocide					



			Isopropanol	67-63-0	60.00000	0.00125	None
			Glutaraldehyde	111-30-8	30.00000	0.00062	None
			Didecyldimethylammonium chloride	7173-51-5	5.00000	0.00010	None
HAI-OS Acid Inhibitor	Halliburton	Corrosion Inhibitor					
			Methanol	67-56-1	60.00000	0.00047	None
			Modified thiourea polymer	Proprietary	30.00000	0.00023	None
			Ethoxylated alcohols	Proprietary	30.00000	0.00023	None
			Propargyl alcohol	107-19-7	10.00000	0.00008	None
LCA-1	Halliburton	Solvent					
			Paraffinic solvent	Proprietary	100.00000	0.00088	None
SP Breaker	Halliburton	Breaker					
			Sodium Persulfate	7775-27-1	100.00000	0.00064	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.							

\* 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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