

Farm name: Robert Baxter WTZ 8H Operator Well No.: 831327

LOCATION: Elevation: 1,320' Quadrangle: Wileyville

District: Proctor County: Wetzel
Latitude: 5,390' Feet South of 39 Deg. 45 Min. 00 Sec.
Longitude 13,280' Feet West of 80 Deg. 42 Min. 30 Sec.

Company: Chesapeake Appalachia, L.L.C.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
P.O. Box 18496 Oklahoma City, OK 73154-0496	20"	118'	118'	202 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	1,062'	1,062'	1,077 Cu. Ft.
Inspector: Derek Haught	9 5/8"	2,623'	2,623'	1,134 Cu. Ft.
Date Permit Issued: 1-16-2013	5 1/2"	12,864'	12,864'	2,941 Cu. Ft.
Date Well Work Commenced: 4-15-2013				
Date Well Work Completed: 12-11-2013				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7,024'				
Total Measured Depth (ft): 12,864'				
Fresh Water Depth (ft.): 511'				
Salt Water Depth (ft.): 1,159'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 962'				
Void(s) encountered (N/Y) Depth(s) N				

OPEN FLOW DATA (If more than two producing formations please include additional data on separate sheets)

Producing formation Marcellus Pay zone depth (ft) 7,349-12,705
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 2,604* MCF/d Final open flow 207 Bbl/d
Time of open flow between initial and final tests 120 Hours *Calculated
Static rock Pressure 4,566* psig (surface pressure) after 120 Hours

Second producing formation _____ Pay zone depth (ft) _____
Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow _____ MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests _____ Hours
Static rock Pressure _____ psig (surface pressure) after _____ Hours

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this document and all the attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information I believe that the information is true, accurate, and complete.

Marlene Wilkerson
Signature

2/26/15
Date

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Were core samples taken? Yes _____ No

Were cuttings caught during drilling? Yes No _____

Were Electrical, Mechanical or Geophysical logs recorded on this well? If yes, please list Yes. Resistivity and porosity logs were taken over surface hole.
Triple combo logs (Neutron/Density, Resistivity, Gamma Ray) were run over intermediate hole.

NOTE: IN THE AREA BELOW PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF THE TOPS AND BOTTOMS OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE FROM SURFACE TO TOTAL DEPTH.

Perforated Intervals, Fracturing, or Stimulating:

See attached

Plug Back Details Including Plug Type and Depth(s):

Formations Encountered:	Top Depth	/	Bottom Depth
Surface:			

See attached

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HORIZONTAL WELL (No pilot hole associated with this pad)				
Maximum TVD of wellbore:	7024 ft TVD @ 12864 ft MD			
Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SS and SILTSTN	0	0	910	910
LS and SS	910	910	1145	1145
Pittsburgh Coal	1145	1145	1156	1156
SH and SS	1156	1156	1716	1716
SILTSTN and SS	1716	1716	2134	2134
Big Lime	2134	2134	2172	2172
SILTSTN and SS	2172	2172	2328	2328
Big Injun	2328	2328	2456	2456
SH and SILTSTN	2456	2456	6878	6767
Geneseo	6878	6767	6928	6788
Tully	6928	6788	6996	6818
Hamilton	6996	6818	7192	6890
Marcellus	7192	6890	7214	6896
Purcell	7214	6896		
End of Well			12864	7024

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Hydraulic Fracturing Fluid Product Component Information Disclosure

103.02840	Fracture Date:	11/6/2013
	State:	WEST VIRGINIA
	County:	WETZEL
	API Number:	4710302840
	Operator Name:	CHESAPEAKE APPALACHIA LLC
	Well Name and Number:	ROBERT BAXTER WTZ 8H
	Longitude:	-80.727658
	Latitude:	39.713564
	Long/Lat Projection:	NAD27
	Production Type:	GAS
True Vertical Depth (TVD):	7,025	
Total Water Volume (gal)*:	6,638,226	

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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
Fresh Water	CHESAPEAKE ENERGY	Carrier/Base Fluid	Water	007732-18-5	100.00%	78.32517%	
Recycled Produced Water	CHESAPEAKE ENERGY	Carrier/Base Fluid	Water	007732-18-5	100.00%	8.01326%	
EC6110A	NALCO	Anti-Bacterial Agent	Ethanol	000064-17-5	5.00%	0.00116%	
			Glutaraldehyde (Pentanediol)	000111-30-8	60.00%	0.01389%	
			Quaternary Ammonium Compounds	NA	10.00%	0.00232%	
EC6629A	NALCO	Scale Inhibitor	No Hazardous Components	NONE		0.00000%	
A264, J218, J580, J609, L058, U028, Acid, Hydrochloric 15pct, Northern White Sand, 100 Mesh Sand	SCHLUMBERGER	Breaker, Corrosion Inhibitor, Friction Reducer, Gelling Agent, Iron Control Agent, Acid, Proppant - Natural	Crystalline silica	14808-60-7	97.98204%	13.13103%	
			Hydrogen chloride	7647-01-0	1.29213%	0.17316%	
			Guar gum	9000-30-0	0.38262%	0.05128%	
			Acrylamide, 2-acrylamido-2-	38193-60-1	0.08832%	0.01184%	
			Ammonium sulfate	7783-20-2	0.08347%	0.01119%	
			Sodium hydroxide	1310-73-2	0.07334%	0.00983%	

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Sodium sulfate	7757-82-6	0.03608%	0.00484%
Diammonium peroxidisulphate	7727-54-0	0.02074%	0.00278%
Polymer of 2-acrylamido-2-	136793-29-8	0.00946%	0.00127%
Urea	57-13-6	0.00582%	0.00078%
Calcium chloride	10043-52-4	0.00566%	0.00076%
Sodium erythorbate	6381-77-7	0.00489%	0.00066%
Methanol	67-56-1	0.00405%	0.00054%
Fatty acids, tall-oil	61790-12-3	0.00298%	0.00040%
Thiourea, polymer with	68527-49-1	0.00245%	0.00033%
Non-crystalline silica	7631-86-9	0.00189%	0.00025%
Alcohols, C14-15, ethoxylated	68951-67-7	0.00114%	0.00015%
Prop-2-yn-1-ol	107-19-7	0.00076%	0.00010%
Alkenes, C>10 a-	64743-02-8	0.00051%	0.00007%
Potassium chloride	7447-40-7	0.00033%	0.00004%
Tetrasodium	64-02-8	0.00018%	0.00002%
Sodium chloride	7647-14-5	0.00010%	0.00001%
Dimethyl siloxanes and silicones	63148-62-9	0.00008%	0.00001%
Siloxanes and Silicones, di-Me,	67762-90-7	0.00001%	< 0.00001%
Octamethylcyclotetrasiloxane	556-67-2	0.00001%	< 0.00001%
Decamethyl cyclopentasiloxane	541-02-6	0.00001%	< 0.00001%
Dodecamethylcyclohexasiloxane	540-97-6	< 0.00001%	< 0.00001%

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Additional Ingredients Not Listed on MSDS

EC6110A, EC6629A	NALCO	Anti-Bacterial Agent, Scale Inhibitor	Methanol (Methyl Alcohol)	000067-56-1	0.00610%
			Proprietary Acrylate Polymer	TRADE SECRET	0.00610%
			Proprietary Quaternary Ammonium Salt	TRADE SECRET	0.00610%
			Water	007732-18-5	0.02301%

* 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%

"Additional Ingredients Not Listed on MSDS" component information were obtained directly from the supplier. As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of this information should be directed to the supplier who provided it.