

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

DATE: 9-14-2012  
API #: 47-049-02159

Farm name: Quality Reclamation 8H Operator Well No.: 833342

LOCATION: Elevation: 1230' Quadrangle: Grant Town

District: Paw Paw County: Marion  
Latitude: 10277' Feet South of 39 Deg. 35 Min. 00 Sec.  
Longitude 11035' Feet West of 80 Deg. 07 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"	120'	120'	286 Cu. Ft.
Agent: Eric Gillespie	13 3/8"	553'	553'	623 Cu. Ft.
Inspector: <b>Bill Hendershot</b>	9 5/8"	3208'	3208'	1493 Cu. Ft.
Date Permit Issued: 12-20-2011	5 1/2"	15440'	15440'	3115 Cu. Ft.
Date Well Work Commenced: 3-18-2012				
Date Well Work Completed: 4-16-2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input checked="" type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 7988'(cement plug @ 7068' - 7980')				
Total Measured Depth (ft): 15443'				
Fresh Water Depth (ft.): 350'				
Salt Water Depth (ft.): None				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 508'				
Void(s) encountered (N/Y) Depth(s) Y 508'				

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

Producing formation Marcellus Pay zone depth (ft) 8,060'-15,310'  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 2,237\* MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 39 Hours \*Calculated  
Static rock Pressure 5,073\* psig (surface pressure) after \_\_\_\_\_ Hours

RECEIVED

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

SEP 18 2012

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

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 Williams  
Signature

9-14-2012  
Date

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 GR, neutron, density, and resistivity  
open hole logs run from 0' - 7,988' MD; LWD GR from 7,086' - 15,396' MD.

**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): Cement plug @ 7068' - 7980'

Formations Encountered: Surface:	Top Depth	/	Bottom Depth
-------------------------------------	-----------	---	--------------

(See Attached)

RECEIVED

SEP 18 2012

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

**PERFORATION RECORD ATTACHMENT**

**Well Number and Name: 833342 Quality Reclamation 8H**

PERFORATION RECORD			STIMULATION RECORD							
Date	Interval Perforated		Date	Interval Treated	Fluid		Propping Agent		Average Injection	
	From	To			Type	Amount	Type	Amount		
5/7/2012	14,737	15,310	5/21/2012	14,737	15,310	Slk wtr	12,198	Sand	614,380	80
5/21/2012	14,068	14,656	5/21/2012	14,068	14,656	Slk wtr	12,541	Sand	617,480	79
5/21/2012	13,400	13,995	5/22/2012	13,400	13,995	Slk wtr	12,625	Sand	611,360	80
5/22/2012	12,733	13,321	5/22/2012	12,733	13,321	Slk wtr	12,378	Sand	610,840	79
5/22/2012	12,065	12,654	5/23/2012	12,065	12,654	Slk wtr	12,343	Sand	612,040	80
5/23/2012	11,398	11,986	5/24/2012	11,398	11,986	Slk wtr	12,171	Sand	614,040	77
5/24/2012	10,730	11,319	5/25/2012	10,730	11,319	Slk wtr	12,509	Sand	613,680	80
5/25/2012	10,063	10,651	5/29/2012	10,063	10,651	Slk wtr	12,198	Sand	612,200	80
5/29/2012	9,395	9,984	5/29/2012	9,395	9,984	Slk wtr	14,233	Sand	503,700	69
5/30/2012	8,728	9,316	5/30/2012	8,728	9,316	Slk wtr	11,965	Sand	608,700	80
5/30/2012	8,060	8,649	5/31/2012	8,060	8,649	Slk wtr	11,868	Sand	615,980	80

RECEIVED

SEP 18

WV GEOLOGICAL SURVEY  
MORGANTOWN, WV

**VERTICAL PILOT HOLE**

Formation/Lithology	Top Depth, TVD/MD (ft)	Bottom Depth, TVD/MD (ft)
SS	0	400
LS	400	500
SS	500	600
LS	600	750
SS	750	850
SILTSTONE	850	1300
SH	1300	1330
SS	1330	1420
SH	1420	1450
SS	1450	1600
SILTSTONE	1600	1613
BIG INJUN (SS)	1613	1810
LS	1810	2020
SH	2020	2110
BEREA (SS)	2110	3152
SH/SILTSTONE	3152	7218
GENESE0	7218	7270
TULLY	7270	7327
HAMILTON	7327	7735
MARCELLUS	7735	7849
ONONDAGA (LS)	7849	
TD OF PILOT HOLE		7988

**LATERAL SIDETRACK  
WELLBORE**

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SS	0	0	400	400
LS	400	400	500	500
SS	500	500	600	600
LS	600	600	750	750
SS	750	750	850	850
SILTSTONE	850	850	1300	1300
SH	1300	1300	1330	1330
SS	1330	1330	1420	1420
SH	1420	1420	1450	1450
SS	1450	1450	1600	1600
SILTSTONE	1600	1600	1613	1613
BIG INJUN (SS)	1613	1613	1810	1810
LS	1810	1810	2020	2020
SH	2020	2020	2110	2110
BEREA (SS)	2110	2110	3152	3152
SH/SILTSTONE	3152	3152	7513	7504
GENESE0	7513	7504	7570	7556
TULLY	7570	7556	7633	7609
HAMILTON	7633	7609	7864	7761
MARCELLUS	7864	7761		
TD OF LATERAL			15443	7802

RECEIVED

SEP 16 1977

WV GEOLOGICAL SURVEY  
MORGANTHAU, WV