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State of West Virginia
Division of Environmental Protection
Section of Oil and Gas
Well Operator's Report of Well Work

Farm Name: Ralph H Harper Lumber Co 1H

Operator Well No.: 626742

LOCATION Elevation: 1,305'
District: 01 Banks

Quadrangle: 582 - Rock Cave
County: 097 - Upshur

Top Hole Latitude: 10,735 ft South of 38° 52' 30"

Top Hole Longitude: 10,735 ft West of 80° 20' 00"

Btm Hole Latitude: 5,000 ft South of 38° 50' 00"

Btm Hole Longitude: 500 ft West of 80° 20' 00"

Company: Chesapeake Appalachia, L.L.C.
P.O. Box 18496
OKC, OK 73154-0496

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill-Up Cu.Ft.
20"	40'	40'	
13 3/8"	340'	340'	290 sxs - CTS
9 5/8"	1,180'	1,180'	500 sxs - CTS
5 1/2"	12,449'	12,449'	2,378 sxs

Agent: Eric Gillespie
Inspector: Bill Hatfield
Date Permit Issued: Drill 6/4/2009
Date Well work commenced: 9/22/2009
Date Well Work completed: 11/30/2009
Verbal Plugging Permission
Granted on / /
Rotary Cable Rig
Total Depth (ft): 12,449 TVD (ft): 6906
Fresh Water Depth (ft): 148
Salt Water Depth (ft.): NA
Is coal being mined in area (Yes No
Coal Depths (ft):
Was this well logged and plugged back?
Yes ___ No ___ if yes -
depth cement plug set _____

RECEIVED
Office of Oil & Gas

OCT 05 2010

WV Department of
Environmental Protection

Open Flow Data

1st Producing Formation Pay Zone Depth 7,342 ft to 12,064 ft
Gas: Initial Open Flow 807 Mcf/day Oil: Initial Open Flow bbl/day
Final Open Flow N/A Mcf/day Final Open Flow bbl/day
Time of Open Flow between Initial and Final Tests In hours
Line hours
Static Rock Pressure 3108 psig after N/A hours

2nd Producing Formation Pay Zone Depth ft to ft
Gas: Initial Open Flow N/A Mcf/day Oil: Initial Open Flow bbl/day
Final Open Flow N/A Mcf/day Final Open Flow bbl/day
Time of Open Flow between Initial and Final Tests hours
Static Rock Pressure N/A psig after hours

3rd Producing Formation Pay Zone Depth ft to ft
Gas: Initial Open Flow N/A Mcf/day Oil: Initial Open Flow bbl/day
Final Open Flow N/A Mcf/day Final Open Flow bbl/day
Time of Open Flow between Initial and Final Tests hours
Static Rock Pressure N/A psig after hours

NOTE: ON BACK OF THIS FORM 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 ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Chesapeake Energy
Well No.:

Perforated Intervals

1 st Stage	Marcellus	10	holes from	11,742 ft to 12,064 ft
2 nd Stage	Marcellus	10	holes from	11,342 ft to 11,664 ft
3 rd Stage	Marcellus	10	holes from	10,942 ft to 11,264 ft
4 th Stage	Marcellus	10	holes from	10,542 ft to 10,864 ft
5 th Stage	Marcellus	10	holes from	10,142 ft to 10,464 ft
6 th Stage	Marcellus	10	holes from	9,742 ft to 10,064 ft
7 th Stage	Marcellus	10	holes from	9,342 ft to 9,664 ft
8 th Stage	Marcellus	10	holes from	8,942 ft to 9,264 ft
9 th Stage	Marcellus	10	holes from	8,542 ft to 8,864 ft
10 th Stage	Marcellus	10	holes from	8,142 ft to 8,464 ft
11 th Stage	Marcellus	10	holes from	7,742 ft to 8,064 ft
12 th Stage	Marcellus	10	holes from	7,342 ft to 7,664 ft

97-3502

Fracturing / Stimulation

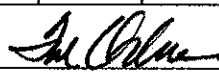
1 st Stage	Type of Treatment Slickwater		
	Total Acid 5,000 Gal of 15% HCl		Breakdown Pressure 1,648 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>		ATP 8,476 psi MTP 8,961 psi
	Total Fluid 9,698 bbl	Total Nitrogen 0 scf	Total Sand 134,000 lb of 100 mesh
			Total Sand 93,688 lb of 30/50
	ISIP 4,674 psi	5 min 3,804psi	
2 nd Stage	Type of Treatment Slickwater		
	Total Acid 2,500 Gal of 15% HCl		Breakdown Pressure 5,795 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>		ATP 8,476 psi MTP 9,035 psi
	Total Fluid 10,792 bbl	Total Nitrogen 0 scf	Total Sand 120,529 lb of 100 mesh
			Total Sand 297,465 lb of 30/50
	ISIP 4,392 psi	5 min 3,217 psi	
3 rd Stage	Type of Treatment Slickwater		
	Total Acid 2,500 Gal of 15% HCl		Breakdown Pressure 7,239 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>		ATP 7,696 psi MTP 9,041 psi
	Total Fluid 8,873 bbl	Total Nitrogen 0 scf	Total Sand 120,529 lb of 100 mesh
			Total Sand 297,434 lb of 30/50
	ISIP 4,392 psi	5 min 3,217 psi	
4 th Stage	Type of Treatment Slickwater		
	Total Acid 2,500 Gal of 15% HCl		Breakdown Pressure 6,117 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>		ATP 7,867 psi MTP 8,888 psi
	Total Fluid 10,603 bbl	Total Nitrogen 0 scf	Total Sand 113,354 lb of 100 mesh
			Total Sand 166,952 lb of 30/50
	ISIP 4,716 psi	5 min 3,406 psi	
5 th Stage	Type of Treatment Slickwater		
	Total Acid 2,500 Gal of 15% HCl		Breakdown Pressure 6,194 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>		ATP 7,585psi MTP 8,524 psi
	Total Fluid 10,382 bbl	Total Nitrogen 0 scf	Total Sand 119,791 lb of 100 mesh
			Total Sand 292,670 lb of 30/50
	ISIP 4,380 psi	5 min 3,217 psi	
6 th Stage	Type of Treatment Slickwater		
	Total Acid 2,500 Gal of 15% HCl		Breakdown Pressure 7,051 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>		ATP 7,513 psi MTP 8,882 psi
	Total Fluid 9,201 bbl	Total Nitrogen 0 scf	Total Sand 120,000 lb of 100 mesh
			Total Sand 278,000 lb of 30/50
	ISIP 4,664 psi	5 min 3,986 psi	
7 th Stage	Type of Treatment Slickwater		
	Total Acid 2,500 Gal of 15% HCl		Breakdown Pressure 6,340 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>		ATP 7,585 psi MTP 8,877 psi
	Total Fluid 10,682 bbl	Total Nitrogen 0 scf	Total Sand 123,090 lb of 100 mesh
			Total Sand 299,900 lb of 30/50
	ISIP 4,380 psi	5 min 3,217 psi	
8 th Stage	Type of Treatment Slickwater		

	Total Acid 2,500 Gal of 15% HCl	Breakdown Pressure 5,912 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>	ATP 6,818 psi MTP 7,204 psi
	Total Fluid 8,709 bbl	Total Nitrogen 0 scf
		Total Sand 124,950 lb of 100 mesh
		Total Sand 278,974 lb of 30/50
9 th Stage	ISIP 5,413 psi	5 min 4,150 psi
	Type of Treatment Slickwater	
	Total Acid 2,500 Gal of 15% HCl	Breakdown Pressure 6,570 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>	ATP 7,096 psi MTP 8,313 psi
	Total Fluid 9,818 bbl	Total Nitrogen 0 scf
		Total Sand 119,741 lb of 100 mesh
		Total Sand 300,652 lb of 30/50
10 th Stage	ISIP 4,550 psi	5 min 4,045 psi
	Type of Treatment Slickwater	
	Total Acid 2,500 Gal of 15% HCl	Breakdown Pressure 6,728 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>	ATP 6,865 psi MTP 7,990 psi
	Total Fluid 8,873 bbl	Total Nitrogen 0 scf
		Total Sand 120,089 lb of 100 mesh
		Total Sand 279,153 lb of 30/50
11 th Stage	ISIP 4,009 psi	5 min 3,206 psi
	Type of Treatment Slickwater	
	Total Acid 2,500 Gal of 15% HCl	Breakdown Pressure 6,352 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>	ATP 7,326 psi MTP 8,143 psi
	Total Fluid 8,569 bbl	Total Nitrogen 0 scf
		Total Sand 120,729 lb of 100 mesh
		Total Sand 279,311 lb of 30/50
12 th Stage	ISIP 4,156 psi	5 min 3,399 psi
	Type of Treatment Slickwater	
	Total Acid 2,500 Gal of 15% HCl	Breakdown Pressure 6,352 psi
	Average Rate 85 scf/min <input type="checkbox"/> or bpm <input checked="" type="checkbox"/>	ATP 7,164 psi MTP 7,656 psi
	Total Fluid 9,157 bbl	Total Nitrogen 0 scf
		Total Sand 122,030 lb of 100 mesh
		Total Sand 283,421 lb of 30/50
	ISIP 5,599 psi	5 min 3,405 psi

Well Log

Formation Name	Top	Bottom	Comments
COAL	392	395	
COAL	486	489	
SALT SANDS	578	1325	
MAXTON	1325	1512	
LITTLE LIME	1452	1512	
BIG LIME	1512	1719	
BIG INJUN	1719	1748	
GANTZ	1774	1806	
GORDON	1891	1922	
FOURTH SAND	2089	2144	
FIFTH SAND	2193	2240	
BAYARD	2330	2344	
ELIZABETH	2432	2485	
WARREN	2564	2616	
SPEECHLEY	2911	2955	
BALLTOWN	3167	3189	
RILEY	3844	3939	
BENSON	4182	4261	
ALEXANDER	4339	4402	
ANGOLA	4488	4820	
RHINESTREET	4820	5350	
ELK	5350	6049	
SYCAMORE	6049	6164	
MIDDLESEX	6748	6967	
GENESEO	6967	6895	
TULLY	6895	6924	
HAMILTON	6924	6992	
MARCELLUS	6992	6949	
ONONDAGA	6949		

97-3502

Signed: 
 CHESAPEAKE APPALACHIA, LLC
 By: TAC ODELS Agr Eng Eastern Div.
 Date: 10/14/2010