WR-35
Rev (5-01)

DATE: 9/15/11
API # : 47-053-00545

State of West Virginia
Department of Environmental Protection
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name:_____Robert G. Wayne__ Operator Well No.:_____HR 1001_____

LOCATION: Elevation: _____895'_____ Quadrangle: _____Mount Alto &Cottageville _

District: _____Cologne_____ County: _____Mason_____
Latitude:_3157___Feet South of_38___Deg. __47_____Min.___30____Sec.
Longitude__880_____Feet West of__81___Deg.___52____Min.___30____Sec.

Company: __Hard Rock Exploration_____

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 2034 Martins Branch Road				
Charleston WV, 25312				
Agent: Marc Scholl	13 3/8"	33'	33'	N/A
Inspector: Jamie Stevens	9 5/8"	800'	800'	392 CuFt
Date Permit Issued: 6/22/11	7"	2464'	2464'	562 CuFt
Date Well Work Commenced: 8/16/11	4.5"	7105'	7105'	130 CuFt
Date Well Work Completed: 9/6/11				
Verbal Plugging:	Ran Gamma Log from KOP(3287' – 4256'MD)			
Date Permission granted on:				
Rotary x Cable Rig				
Total Depth (feet): 7179'TMD, 3871'TVD				
Fresh Water Depth (ft.): 640'				
Salt Water Depth (ft.): 1200', 1910'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.):_____N/A_____				

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Office of Oil & Gas
SEP 15 2011
WV Department of
Environmental Protection

OPEN FLOW DATA

Producing formation___Lower Huron_Shale__Pay zone depth (ft) 3896'MD- 7179'MD
3801'TVD – 3871' TVD
Gas: Initial open flow__400_____MCF/d Oil: Initial open flow_____Bbl/d
Final open flow___2000+_____MCF/d Final open flow _____Bbl/d
Time of open flow between initial and final tests____72_____Hours
Static rock Pressure__850_____psig (surface pressure) after _96_____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

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.

Signed: _____
By: President
Date: 9/15/11

01/20/2012

Formation:	Top:	Bottom:	
Soil/Sand/Shale	0	1730	**Water 640', 1200'**
Salt Sand/Maxton	1730	1800	
Big Lime	1800	1930	**Water 1910'**
Injun Sand/Squaw	1950	2200	
Shale	2200	2420	
Berea Sand	2420	2440	
Devonian Shale	2440	3870	
Lower Huron Section	3740	3870	**Gas Show**

08/25/11 Run 166 jts of R-3 4.5" 11.6ppf casing to depth of 7105'. Run 16 team downhole inflatable packers and 15 frac sleeves. Casing stacked out last 450' had to push with rig. Finish running casing at 1:30-2:00am. RU DSA and frac valve. MIRU BJ Services. Drop 2 balls for circ shoe and pump N2 at 7-8k scf/min to land balls. Continue pumping for total of 120k scf -- open sleeve at 2560psi at 4:50am. SD. SWI. RU to perform annular squeeze . Finish with cmt squeeze at 7:15am. Pumped 100sx type 1 3% at 15.2ppg. SWI

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	Sleeves	Sleeve Size	Packers	Ball Size
Stage 1	7015.40	HP	6923.30	N/A
Stage 2	6838.00	1.125	6745.90	1.250
Stage 3	6618.80	1.281	6526.70	1.406
Stage 4	6399.60	1.438	6307.50	1.563
Stage 5	6180.40	1.594	6088.30	1.719
Stage 6	5961.20	1.750	5869.10	1.875
Stage 7	5742.00	1.906	5649.90	2.031
Stage 8	5522.80	2.063	5430.70	2.188
Stage 9	5303.60	2.219	5211.50	2.344
Stage 10	5084.40	2.375	4992.30	2.500
Stage 11	4865.20	2.531	4773.10	2.656
Stage 12	4646.00	2.688	4553.90	2.813
Stage 13	4426.80	2.844	4334.65	2.969
Stage 14	4207.40	3.036	4115.20	3.250
Stage 15	3988.10	3.286	3896.00	3.500
			2675.30	

09/06/117179' FRAC MIRU BJ Services. Casing pressure at 725psi. Start pumping N2 on **Stg 1** at 8:40am at half rate and work up to 90k scf/min. Pump total of 1MMscf N2 (saw good formation break early). 8 min shut in 1250psi. Load 1.25" ball for **Stg 2.** Wait for ball to drop. Start pumping at 15k scf/min, land ball after **60k** scf, and up rate to 33k scf/min – no clear indication of sleeve opening. Continue to pump for total of 1MMscf N2. SD and load ball droppers. Drop 1.406" ball for **Stg 3.** Start pumping ball down at 10:43am. Land ball at 55k scf at 15k scf/min. Up rate to open sleeve – no clear sign of sleeve. Up rate and continue pumping for total of 1MMscf N2. **Repeat for Stgs 4-15.**

	Stg 1	Stg 2	Stg 3	Stg 4	Stg 5	Stg 6	Stg 7	Stg 8	Stg 9	Stg 10	Stg 11	Stg 12	Stg 13	Stg 14	Stg 15
Max P	5930	5962	5942	5433	5882	5407	5622	5336	5495	5045	5239	5098	5098	4443	4536
Avg P	5538	5801	5725	5157	5766	5330	5423	5202	5249	4930	5143	5005	4959	4347	4436
Max R	90.6	91.2	92.9	101.9	101.7	102.3	106.6	109	103.5	101.3	106.9	106.5	108.8	108.2	110.8
Avg R	84.8	89.8	85	97	100	100.7	104.2	106.8	99.7	99.3	105.5	105.4	104.5	106	108.5
5 min	N/A	1760	1595	1394	1475	N/A	1446	1390	1500	1496	1565	1517	1554	N/A	1539