

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

DATE: 6/27/2013
API #: 47-51-01533

Farm name: Shields Operator Well No.: 1H

LOCATION: Elevation: 1331' Quadrangle: Powhatan Point 7.5'

District: Franklin County: Marshall
Latitude: 11,620 Feet South of 39 Deg. 47 Min. 30 Sec.
Longitude 10,540 Feet West of 80 Deg. 45 Min. 00 Sec.

Company: Gastar Exploration USA, Inc

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
229 West Main St, Suite 301 Clarksburg, WV 26301	20"		110'	CTS
Agent: Michael McCown	13 3/8"		1146'	1020 ft^3
Inspector: Bill Hendershot	9 5/8"		2529'	1038 ft^3
Date Permit Issued: 3-1-2012	5 1/2"		9,935'	2780 ft^3
Date Well Work Commenced: 4-2-2012	2 3/8"		6567'	
Date Well Work Completed: 4-11-2013				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input checked="" type="checkbox"/>				
Total Vertical Depth (ft): 6509'				
Total Measured Depth (ft): 9961'				
Fresh Water Depth (ft.): 60'				
Salt Water Depth (ft.): 1600'				
Is coal being mined in area (N/Y)? No				
Coal Depths (ft.): Refer to page 2				
Void(s) encountered (N/Y) Depth(s) No				

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

Producing formation Marcellus Pay zone depth (ft) 7270' to 12,391'

Gas: Initial open flow 2568 MCF/d Oil: Initial open flow 115 Bbl/d

Final open flow 2496 MCF/d Final open flow 172 Bbl/d

Time of open flow between initial and final tests 96 Hours

Static rock Pressure _____ psig (surface pressure) after _____ 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

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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.

Steve Palmer

6-27-13

01/17/2014

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 No

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 sheet:

Plug Back Details Including Plug Type and Depth(s): n/a

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

Sewickley Coal	766 - 786	Geneseo	6355 - 6375
Pittsburgh Coal	907 - 917	Tully	6375 - 6412
Maxton	1885 - 1935	Hamilton	6412 - 6452
Big Lime	1958 - 1988	Marcellus	6452 - 6509
Big Injun	1988		
Base of Big Injun	2132		
Weir	2317 - 2487		
Berea	2505 - 2745		
Gordon	2840 - 2870		
Benson	3544 - 3554		
Java	5167 - 5487		
Rhinestreet	5839 - 5981		
Cashaqua	5981 - 6270		
Middlesex	6270 - 6284		
West River	6284 - 6355		

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Fluid & Sand Volume Summary - Shields #1H

<u>Date</u>	<u>Stage</u>	<u>Perforated interval</u>		<u>Fluid Type</u>	<u>Frac Fluid</u>	<u>Pump</u>	<u>100 mesh</u>	<u>40/70 M</u>	<u>Total Sand</u>	<u>Avg Inj</u>
		<u>From</u>	<u>To</u>							
12/12/2012	1	9766	9790	slk wtr	3375	bbls	lbs	lbs	lbs	BPM
1/4/2013	2	9651	9741	slk wtr	4577	385	26000	71621	97621	79
1/5/2013	3	9366	9616	slk wtr	8712	343	47858	151784	199642	81
1/6/2013	4	9066	9316	slk wtr	7292	226	40301	262225	302526	81
1/7/2013	5	8766	9016	slk wtr	8424	184	40396	265738	306134	80
1/8/2013	6	8466	8716	slk wtr	8082	158	38741	316678	355419	81
1/9/2013	7	8166	8416	slk wtr	7265	162	40727	316678	357405	80
1/10/2013	8	7866	8116	slk wtr	7089	118	39203	326802	366005	81
1/10/2013	9	7566	7816	slk wtr	7948	113	39269	319237	358506	80
1/10/2013	10	7346	7516	slk wtr	8012	103	36300	308389	344689	80
1/10/2013	11	7121	7291	slk wtr	7638	80	41831	252255	294086	80
Totals						1925	430708	2825771	3256479	

Water to Recover **80339 bbls**

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