

✓ WR-35
Rev (9-11)

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 #: 47-051-01537

Farm name: Shields Operator Well No.: 5H

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

District: Franklin County: Marshall
Latitude: 11,540 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"		1150'	1046 ft^3
Inspector: Bill Hendershot	9 5/8"		2536'	1097 ft^3
Date Permit Issued: 3-26-2012	5 1/2"		10535'	2961 ft^3
Date Well Work Commenced: 5-11-2012	2 3/8"		6459'	
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): 6527'				
Total Measured Depth (ft): 10,560'				
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) 7118' to 10,397'
Gas: Initial open flow 1296 MCF/d Oil: Initial open flow 97 Bbl/d
Final open flow 2448 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.

Donna Perkins

6-27-13 01/17/2014

Were core samples taken? Yes _____ No X

Were cuttings caught during drilling? Yes _____ No X

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

<u>Formations Encountered:</u>	<u>Top Depth</u>	<u>Bottom Depth</u>
<u>Surface:</u>		
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 - 6527
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 #5H

Date	Stage	Perforated interval		Fluid Type	Frac Fluid	Pump	100 mesh			40/70 M		Total Sand	Avg Inj
		From	To				Down	lbs	lbs	lbs	BPM		
12/12/2012	1	10363	10287	slk wtr	2868	300	24274	68820	93094	82			
12/12/2012	2	10248	10338	slk wtr	3820	199	37983	146286	184269	81			
12/13/2012	3	9963	10218	slk wtr	7243	225	36160	319005	355165	81			
12/14/2012	4	9663	9918	slk wtr	7165	233	40886	322810	363696	81			
12/15/2012	5	9363	9618	slk wtr	7079	210	39143	315332	354475	80			
12/16/2012	6	9063	9318	slk wtr	7076	196	40654	325033	365687	80			
12/17/2012	7	8763	9018	slk wtr	7138	200	39011	323084	362095	81			
12/18/2012	8	8463	8718	slk wtr	6884	347	41276	316003	357279	82			
12/18/2012	9	8163	8418	slk wtr	6936	246	39785	318249	358034	80			
12/19/2012	10	7863	8118	slk wtr	7070	293	39189	278400	317589	83			
12/19/2012	11	7563	7818	slk wtr	7027	150	39138	320623	359761	81			
12/20/2012	12	7343	7513	slk wtr	7106	139	41122	322559	363681	81			
12/20/2012	13	7118	7288	slk wtr	6686	106	38829	269171	308000	82			

Totals 84098 2844 497450 3645375 4142825

Water to Recover 86942 bbls

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