

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

DATE: April 11, 2013
API #: 47-051-01554 - Revised

Farm name: Lily - North Operator Well No.: 4H

LOCATION: Elevation: 1272' Quadrangle: New Martinsville 7.5'

District: Franklin County: Marshall
Latitude: 4575 Feet South of 39 Deg. 45 Min. 00 Sec.
Longitude 4210 Feet West of 60 Deg. 47 Min. 30 Sec.

Company: Gastar Exploration USA, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
229 West Main Street, Suite 301 Clarksburg, WV 26301	20"		110'	CTS
Agent: Michael McCown	13-3/8"		1151'	1046
Inspector: Bill Hendershot	9-5/8"		2492'	1097
Date Permit Issued: 6/1/2012	5-1/2"		12111'	3486
Date Well Work Commenced: 9/4/2012	2-3/8"		6600'	
Date Well Work Completed: 12/17/2012				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): 6,512'				
Total Measured Depth (ft): 12,142'				
Fresh Water Depth (ft.): 60'				
Salt Water Depth (ft.): 1600'				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): 898-918; 1077-1087				
Void(s) encountered (N/Y) Depth(s) N				

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

Producing formation Marcellus Pay zone depth (ft) 6512'
Gas: Initial open flow 1872 MCF/d Oil: Initial open flow 115 Bbl/d
Final open flow 1656 MCF/d Final open flow 128 Bbl/d
Time of open flow between initial and final tests 264 Hours
Static rock Pressure 1635 psig (surface pressure) after 264 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

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.

[Signature]
Signature

4-11-13
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 Gamma Ray Log

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	898 - 918	Geneseo 6385 - 6407
Pittsburgh Coal	1077 - 1087	Tully 6407 - 6439
Maxton	1971 - 2039	Hamilton 6439 - 6470
Big Lime	2040 - 2070	Marcellus 6470 - 6512
Big Injun	2079	
Base of Big Injun	2180	
Weir	2418 - 2588	
Berea	2597 - 2837	
Gordon	2903 - 2933	
Benson	3600 - 3610	
Java	5200 - 5520	
Rhinestreet	5887 - 6200	
Cashaqua	6200 - 6300	
Middlesex	6300 - 6325	
West River	6325 - 6385	

Fluid & Sand Volume Summary - Lity #4H

<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> ft	<u>To</u> ft							
11/10/2012	1	11973	11997	slk wtr	bbls	bbls	lbs	lbs	lbs	BPM
11/11/2012	2	11824	11914	slk wtr	7077	333	77885	285268	363153	80
11/12/2012	3	11539	11789	slk wtr	6980	345	77041	272071	349112	80
11/13/2012	4	11440	11488	slk wtr	6077	287	77881	110523	188404	80
11/15/2012	5	11338	11390	slk wtr	6534	299	78169	197681	275850	81
11/16/2012	6	10733	11300	slk wtr	7055	294	77617	283508	361125	81
11/17/2012	7	10535	10655	slk wtr	7056	265	77629	285195	362824	80
11/18/2012	8	10041	10470	slk wtr	6534	238	77544	284985	362529	80
11/19/2012	9	9786	9908	slk wtr	7000	191	77032	282871	359903	80
11/20/2012	10	9598	9718	slk wtr	6833	228	77742	265155	342897	82
11/21/2012	11	9403	9553	slk wtr	7042	242	77022	283628	360650	81
11/24/2012	12	9208	9375	slk wtr	7384	173	77240	280786	358026	81
11/26/2012	13	8702	9055	slk wtr	6748	179	77632	247163	324795	80
11/27/2012	14	8384	8567	slk wtr	4677	206	5581	0	5581	66
11/28/2012	15	8239	8350	slk wtr	6495	191	64977	239870	304847	80
11/29/2012	16	8088	8195	slk wtr	7287	127	77832	152689	230521	81
11/30/2012	17	7287	7800	slk wtr	6992	377	77498	286161	363659	80
12/1/2012	18	7286	7800	slk wtr	6979	119	77540	280408	357948	80
Totals					117927	4554	1261604	4128100	5389704	

Water to Recover

122481 bbls