

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: April 11, 2013
API #: 47-051-01552 - Revised

Farm name: Lily - South Operator Well No.: 2H

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

District: Franklin County: Marshall
Latitude: 4605 Feet South of 39 Deg. 45 Min. 00 Sec.
Longitude 4180 Feet West of 80 Deg. 47 Min. 30 Sec.

Company: Gastar Exploration USA, Inc.

Address:	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
<u>229 West Main Street, Suite 301</u> <u>Clarksburg, WV 26301</u>	<u>20"</u>		<u>110'</u>	<u>CTS</u>
Agent: <u>Michael McCown</u>	<u>13-3/8"</u>		<u>1190'</u>	<u>1109</u>
Inspector: <u>Bill Hendershot</u>	<u>9-5/8"</u>		<u>2534'</u>	<u>1097</u>
Date Permit Issued: <u>6/1/2012</u>	<u>5-1/2"</u>		<u>12536'</u>	<u>3508</u>
Date Well Work Commenced: <u>8/7/2012</u>	<u>2-3/8"</u>		<u>6588'</u>	
Date Well Work Completed: <u>12/17/2012</u>				
Verbal Plugging:				
Date Permission granted on:				
Rotary <input type="checkbox"/> Cable <input type="checkbox"/> Rig <input type="checkbox"/>				
Total Vertical Depth (ft): <u>6,508'</u>				
Total Measured Depth (ft): <u>12,566'</u>				
Fresh Water Depth (ft.): <u>60'</u>				
Salt Water Depth (ft.): <u>1600'</u>				
Is coal being mined in area (N/Y)? <u>N</u>				
Coal Depths (ft.): <u>898-918; 1077-1087</u>				
Void(s) encountered (N/Y) Depth(s) <u>N</u>				

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

Producing formation Marcellus Pay zone depth (ft) 6508'
Gas: Initial open flow 1732 MCF/d Oil: Initial open flow 112 Bbl/d
Final open flow 2448 MCF/d Final open flow 128 Bbl/d
Time of open flow between initial and final tests 264 Hours
Static rock Pressure 1739 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

11/22/2013

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 - 6508
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 - Lily #2H

Date	Stage	Perforated interval		Fluid Type	Frac Fluid	Pump Down	100 mesh	40/70 M	Total Sand	Avg Inj
		From ft	To ft							
11/10/2012	1	12392	12420	slk wtr	3318	380	27740	88603	116343	80
11/11/2012	2	12251	12341	slk wtr	7294	415	77508	282445	359953	80
11/12/2012	3	11966	12216	slk wtr	7414	358	78507	151715	230222	80
11/13/2012	4	11666	11916	slk wtr	6987	382	77612	281359	358971	80
11/15/2012	5	11366	11616	slk wtr	7066	310	78249	284095	362344	81
11/16/2012	6	11066	11316	slk wtr	6910	302	77885	283221	361106	81
11/17/2012	7	10766	11016	slk wtr	6919	276	77917	286283	364200	83
11/18/2012	8	10466	10716	slk wtr	6798	242	77541	284307	361848	80
11/19/2012	9	10166	10416	slk wtr	6388	232	77456	196133	273589	80
11/20/2012	10	9866	10116	slk wtr	6725	211	78543	278204	356747	81
11/21/2012	11	9566	9816	slk wtr	8505	202	77261	275542	352803	80
11/24/2012	12	9266	9516	slk wtr	6244	183	77629	166630	244259	80
11/25/2012	13	8966	9216	slk wtr	7125	169	77853	281927	359780	80
11/26/2012	14	8666	8916	slk wtr	6961	195	77513	281115	358628	81
11/27/2012	15	8366	8616	slk wtr	6926	175	77453	280934	358387	80
11/28/2012	16	8066	8316	slk wtr	7123	171	77555	284804	362359	80
11/29/2012	17	7766	8016	slk wtr	6495	143	77613	240183	317796	80
11/20/2012	18	7466	7716	slk wtr	6820	95	77570	278816	356386	80
12/1/2012	19	7166	7416	slk wtr	6922	71	77596	284823	362419	80
Totals										
					128940	4512	1427001	4791139	6218140	

Water to Recover

133452 bbls