

# JK

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

API 47-033-05712 County HARRISON District SARDIS  
Quad SALEM 7.5' Pad Name GOODWIN Field/Pool Name MARCELLUS  
Farm name COASTAL FOREST RESOURCES Well Number Goodwin 3-2H  
Operator (as registered with the OOG) STATOIL USA ONSHORE PROPERTIES, INC.  
Address 2103 CITYWEST BLVD., STE 800 City HOUSTON State TX Zip 77042

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4358065.31 Easting 5549956.48  
Landing Point of Curve Northing \_\_\_\_\_ Easting \_\_\_\_\_  
Bottom Hole Northing 4356235.22 Easting 550426.72

Elevation (ft) 1100 GL Type of Well  New  Existing Type of Report  Interim  Final  
Permit Type  Deviated  Horizontal  Horizontal 6A  Vertical Depth Type  Deep  Shallow  
Type of Operation  Convert  Deepen  Drill  Plug Back  Redrilling  Rework  Stimulate  
Well Type  Brine Disposal  CBM  Gas  Oil  Secondary Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

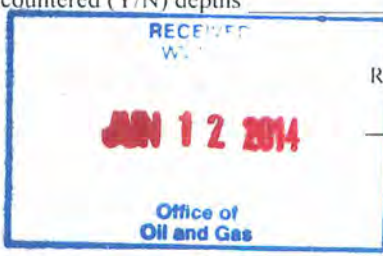
Not a brine well

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
ABS 40

Date permit issued 02/07/2013 Date drilling commenced 04/04/2013 Date drilling ceased 05/05/2013  
Date completion activities began 12/03/2013 Date completion activities ceased 01/04/2014  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 45' - 46' Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1630' - 1634' Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 535' - 537' Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) Y- several miles east



Reviewed by:  
Corrected  
06/27/2017

API 47-033 - 05712 Farm name COASTAL FOREST RESOURCES Well number Goodwin 3-2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor		20"	120'				
Surface	17 1/2"	13 3/8"	337'		J55 54.5		Y
Coal							
Intermediate 1	12 1/4"	9 5/8"	2345'		JFF 36		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4 "	5 1/2"	13220'		P110 23		Y
Tubing		2 3/8'					Y
Packer type and depth set							

Comment Details \_\_\_\_\_

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface	A	340	15.6	1.18		SURFACE	4
Coal							
Intermediate 1	A 2% CaCl	852	15.6	1.18		SURFACE	4
Intermediate 2							
Intermediate 3							
Production		1434 Lead 943 Tail	14.5 lead, 15.6 tail			SURFACE	N/A
Tubing							

Drillers TD (ft) 13220'      Loggers TD (ft) 13220'  
 Deepest formation penetrated MARCELLUS      Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 6030'

Check all wireline logs run       caliper     density     deviated/directional     induction  
 neutron     resistivity     gamma ray     temperature     sonic

Well cored     Yes     No      Conventional      Sidewall      Were cuttings collected     Yes     No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING    Unknown

WAS WELL COMPLETED AS SHOT HOLE     Yes     No      DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?     Yes     No      DETAILS 13063'-8023'

WERE TRACERS USED     Yes     No      TYPE OF TRACER(S) USED \_\_\_\_\_

RECEIVED  
WV DEP

JUN 12 2014

corrected.

API 47- 033 - 05712 Farm name COASTAL FOREST RESOURCES Well number Goodwin 3-2H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	12/03/2013	13063	12823	4 @ 6 SPF	MARCELLUS
2	12/04/2013	12763	12523	4 @ 6 SPF	MARCELLUS
3	12/04/2013	12463	12223	4 @ 6 SPF	MARCELLUS
4	12/05/2013	12163	11923	4 @ 6 SPF	MARCELLUS
5	12/05/2013	11863	11623	4 @ 6 SPF	MARCELLUS
6	12/06/2013	11563	11323	4 @ 6 SPF	MARCELLUS
7	12/06/2013	11257	11023	4 @ 6 SPF	MARCELLUS
8	12/07/2013	10963	10723	4 @ 6 SPF	MARCELLUS
9	12/09/2013	10663	10423	4 @ 6 SPF	MARCELLUS
10	12/10/2013	10363	10123	4 @ 6 SPF	MARCELLUS
11	12/10/2013	10063	9823	4 @ 6 SPF	MARCELLUS
12	12/11/2013	9763	9523	4 @ 6 SPF	MARCELLUS
13	12/11/2013	9463	9223	4 @ 6 SPF	MARCELLUS
14	12/11/2013	9163	8923	4 @ 6 SPF	MARCELLUS
15	12/12/2013	8863	8623	4 @ 6 SPF	MARCELLUS
16	12/22/2013	8563	8323	4 @ 6 SPF	MARCELLUS

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
1	12/03/13	79	7969	6800	4803	400,050	7233	
2	12/04/13	79	7850	11	4810	0	8603	
3	12/04/13	79	7755	6648	4553	421,800	7020	
4	12/05/13	80	7908	6718	4736	420,074	6968	
5	12/05/13	80	7835	7143	4937	416,136	6830	
6	12/06/13	80	7957	7268	4880	427,140	7044	
7	12/06/13	81	7791	6456	4902	431,676	6923	
8	12/07/13	80	8090	6773	4541	428,820	6730	
9	12/09/13	80	7480	5313	4989	431,109	6891	
10	12/10/13	79	7577	6254	5000	419,202	6527	
11	12/10/13	81	7957	6873	5483	414,866	6583	
12	12/11/13	75	8571	6439	4857	177,377	5429	
13	12/11/13	80	7399	5903	4554	426,258	6644	
14	12/11/13	81	7546	6291	4699	403,032	6351	
15	12/12/13	80	7711	6270	4719	422,888	6611	
16	12/22/13	80	7496	6367	4966	406,476	6315	

Please insert additional pages as applicable.





API 47- 033 - 05712 Farm name COASTAL FOREST RESOURCES Well number Goodwin 3-2H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>		
MARCELLUS	7661	TVD	7661 MD

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 3550 psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST 99 hrs

OPEN FLOW Gas 7800 mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water 240 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
	0		0		
Fresh Water	45	46	45	46	Fresh Water
Coal	535	537	535	537	Coal
Salt Water	1630	1634	1630	1634	Brine
Benson	5211	6880	5211	6880	Sandstone
Middlesex	6880	7256	6880	7256	Black Shale
Genesee	7256	7312	7256	7312	Black Shale
Tully LS	7312	7383	7312	7383	Gray Limestone
Hamilton	7383	7509	7383	7509	Gray Shale
Lower Hamilton	7509	7661	7509	7661	Gray Shale
Marcellus	7661	Not Recorded	7661	Not Recorded	Black Shale

Please insert additional pages as applicable.

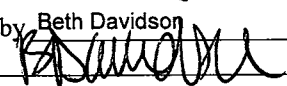
Drilling Contractor Pioneer  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company Superior Well Services/Nabors Well Services  
Address 1650 Hackers Creek Road City Jane Lew State WV Zip 26378

Stimulating Company Producers Service Corp.  
Address 109 S. Graham Street City Zanesville State OH Zip 43701

Please insert additional pages as applicable.

Completed by Beth Davidson Telephone 281-797-7757  
Signature  Title Regulatory Advisor Date 04/25/2013



