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

API 47 - 069 - 00173 County Ohio District Triadelphia
Quad Valley Grove Pad Name G W Rentals LLC Field/Pool Name _____
Farm name G W Rentals LLC OHI 1H Well Number 838482
Operator (as registered with the OOG) _____
Address _____ City _____ State _____ Zip _____

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4436091.8 Easting 537040.2
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing 4438338.5 Easting 535533.8

Elevation (ft) 1250' 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

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)
SOBM

Date permit issued 9-25-2013 Date drilling commenced 10-30-2013 Date drilling ceased 11-14-2013
Date completion activities began 6/22/2014 Date completion activities ceased 6/28/2014
Verbal plugging (Y/N) _____ Date permission granted _____ Granted by _____

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

Freshwater depth(s) ft 510' Open mine(s) (Y/N) depths N
Salt water depth(s) ft 895' Void(s) encountered (Y/N) depths Y 628'
Coal depth(s) ft 628' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

Reviewed by:

API 47- 069 - 00173 Farm name G W Rentals LLC OHI 1H Well number 838482

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	30"	20"	122'	New	K-55 94#		
Surface	17 1/2"	13 3/8"	725'	New	J-55 54.5#		Y
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,180'	New	J-55 40#		Y
Intermediate 2							
Intermediate 3							
Production	8 3/4" / 8 1/2"	5 1/2"	15,302'	New	P-110 20#		Y
Tubing		2 3/8"					
Packer type and depth set		10K Arrowset ASI-X 5 1/2" 6,197'					

Comment Details

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft ^{3})	Cement Top (MD)	WOC (hrs)
Conductor	A	311	15.60	1.20	373.2	Surface	8
Surface	A	157 / 293	15.60	1.21	544.5	Surface	8
Coal							
Intermediate 1	A	765	15.60	1.19	910.35	Surface	8
Intermediate 2							
Intermediate 3							
Production	H	1,087 / 2,080	15	1.17 / 1.18	3726.19	215'	8
Tubing							

Drillers TD (ft) 15,302 Loggers TD (ft)

Deepest formation penetrated Marcellus Plug back to (ft)

Plug back procedure

Kick off depth (ft) 5,848'

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

Surface / Coal - Run centralizers in the middle and top of the first joint, top of the third jt and every 4th joint to surface.

Production - Run 1st centralizer 3' from Shoe, 2nd at top of the first joint and then one every 3rd joint to TOC.

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

API 47- 069 - 00173 Farm name G W Rentals LLC OHI 1H Well number 838482

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	Attached				

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)
	Attached							

Please insert additional pages as applicable.

API 47- 069 - 00173 Farm name G W Rentals LLC OHI 1H Well number 838482

PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6,467 TVD	15,302 MD	

Please insert additional pages as applicable.

GAS TEST □ Build up □ Drawdown ■ Open Flow OIL TEST ■ Flow □ Pump

SHUT-IN PRESSURE Surface 1,400 psi Bottom Hole 4,198 psi DURATION OF TEST 72 hrs

OPEN FLOW Gas 3,184 mcfpd Oil 267 bpd NGL bpd Water 587 bpd GAS MEASURED BY ■ Estimated □ Orifice □ Pilot

LITHOLOGY/ FORMATION NAME	TOP DEPTH IN FT 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_2S, ETC)
	0		0		
SEE ATTACHED					

Please insert additional pages as applicable.

Drilling Contractor Nomac Drilling
Address 171 Locust Ave Extension City Mt. Morris State PA Zip 15349

Logging Company Nomac Drilling
Address 171 Locust Ave Extension City Mt. Morris State PA Zip 15349

Cementing Company Baker Hughes
Address 1178 US HWY 33 East City Weston State WV Zip 26452

Stimulating Company Schlumberger Technology Corporation
Address P.O. Box 201193 City Houston State TX Zip 77216

Please insert additional pages as applicable.

Completed by _____ Telephone _____
Signature _____ Title _____ Date _____

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

LATERAL WELLBORE

Maximum TVD of wellbore: 6467 ft TVD @ 7188 ft MD

Formation/Lithology	Top Depth, MD (ft)	Top Depth, TVD (ft)	Bottom Depth, MD (ft)	Bottom Depth, TVD (ft)
SLTSTN/LS	0	0	470	470
LS/SLTSTN	470	470	608	608
PITTSBURGH COAL	608	608	614	614
NO SAMPLES	614	614	725	725
SLTSTN/LS	725	725	860	860
SS/SLTSTN	860	860	950	950
LS/SLTSTN	950	950	980	980
SS/SLTSTN	980	980	1130	1130
SLTSTN/SS	1130	1130	1220	1220
SHALE/SS	1220	1220	1350	1350
SS/SHALE	1350	1350	1490	1490
SHALE	1490	1490	1550	1550
SS/SHALE	1550	1550	1670	1670
SHALE	1670	1670	1700	1700
LS/SS	1700	1700	1808	1808
BIG INJUN	1808	1808	2016	2016
SHALE	2016	2016	6566	6289
GENESEO	6566	6289	6594	6306
TULLY	6594	6306	6657	6341
HAMILTON	6657	6341	6987	6453
MARCELLUS	6987	6453	15302	6404
TD	15302	6404		0