

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

Received

JUN 18 2015

Office of Oil and Gas
WV Dept. of Environmental Protection
Clay

API 47 - 051 - 01725 County Marshall District Clay
Quad Powhatan Pad Name Berger Pad A Field/Pool Name _____
Farm name Berger Well Number Berger 3H
Operator (as registered with the OOG) Chevron Appalachia, LLC
Address 800 Mountain View Drive City Smithfield State PA Zip 15478

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey

Top hole Northing _____ Easting _____
Landing Point of Curve Northing _____ Easting _____
Bottom Hole Northing _____ Easting _____

Elevation (ft) 1292 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) _____

Date permit issued 5/27/2014 Date drilling commenced 6/26/2014 Date drilling ceased 5/8/2015
Date completion activities began _____ Date completion activities ceased _____
Verbal plugging (Y/N) Y Date permission granted 4/30/2015 Granted by Jim Nicholson

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

Freshwater depth(s) ft 169' Open mine(s) (Y/N) depths N
Salt water depth(s) ft _____ Void(s) encountered (Y/N) depths N
Coal depth(s) ft 768'-769', 784'-785', 830'-837', 1411'-1413', 1415'-1418' Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) No but not sealed

Reviewed by: _____



Berger 3H

CASING SIZE	DEPTH (GL)		WELLHEAD DESIGN FMC UH-2 13 5/8"	HOLE SIZE (IN)	HOLE DEPTH (FT)	Reference Depth RKB 32'
	MD (FT)	TVD (FT)				
13-3/8" Casing	2,670	-				
CAST IRON BP 2	5,300					NOT TO SCALE
Cement Plug 3	5600'-5300'					
CAST IRON BP 1	5,600					
Marcellus	6357'-6456'					
TOC PLUG 2	7,689					
9-5/8" Casing	8,533	-				

Clinton Medina	8852'-8910'
----------------	-------------

BTM PLUG 2	9,400
------------	-------

TOC PLUG 1	10,352
------------	--------

Utica	11,320'-11,679'
-------	-----------------

Point Pleasant	11,680'- TD
----------------	-------------

BTM PLUG 1	12,026
Current Depth	12,026

RECEIVED
Office of Oil and Gas

MAY 29 2015

WV Department of
Environmental Protection

10/10/2020

2020 8 1 MUL

10/10/2020
10/10/2020

API 47-051 - 01725 Farm name Berger Well number Berger 3H

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							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set							

Comment Details _____

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ²)	Cement Top (MD)	WOC (hrs)
Conductor							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 12028 PTB MD Loggers TD (ft) _____
 Deepest formation penetrated Point Pleasant Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) _____

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 _____

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- 051 - 01725 Farm name Berger Well number Berger 3H

PERFORATION RECORD

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

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)

Please insert additional pages as applicable.

API 47- 051 - 01725 Farm name Berger Well number 3H

PRODUCING FORMATION(S)	DEPTHS	TVD	MD
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Received
JUN 18 2015

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump
 SHUT-IN PRESSURE Surface _____ psi Bottom Hole _____ psi DURATION OF TEST _____
 OPEN FLOW Gas _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY
 Estimated Orifice Pilot

Office of Oil and Gas
WV Dept. of Environmental Protection

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 ₂ S, ETC)
	0		0		
Dunkard Group Sand	160	169	160	169	Fresh Water 169'MD 1" stream
Pittsburgh Coal	830	837	830	837	Coal
Salt Sand	1538	1568	1540	1570	Gas Show @ 1550' 6101 units
Big Lime	1848	1928	1850	1930	Limestone: crm-wh, hd, crpxln
Burgoon (Big Injun)	1927	2117	1930	2120	SS: offwh, wh, cons, clr, trans, lcemt, fg-mg
Berea Sand	2507	2530	2510	2533	SS: wh, cl, trans, lgy-gy, cns, lomt, mg-fg, sbang-ang, arg, maph, non calc, tr bar, cal fast cut, frt odr, lso pyr
Marcellus Shale	6404	6440	6405	6440	SH: drgy, v drgy, frm, sly, grty, sbblky-sbplty, non calc, lso calc, lso pyr, well sgy, lgy, hrd, mod, mic, hln, v, arg
Oriskany	6657	6761	6658	6762	SS: gry-brn, trnsl, med-fn gr, sbang-ang, calc mtz, tr ls, tr sh
Salina	7262	8209	7263	8210	Dol: med gry-brnsh gry, mdstn-pkstin. SALT: trns-clr, xln, ehdr.
Lockport	8209	8582	8210	8582	DOL: d gry-blk, med gry lp, wkstn-pkstin, vf xln-microxln, mass-micsuc
Queenston	9109	9944	9110	9945	SH: rdsh gry, frm-sli hd, sbblky-amor, rgh-sity txt
Utica	10938	11066	11310	11698	SH: dk gry-v dk gry, sft - frm, sbblky-sbplty, sity-sli grty txt, mry, sli calc, carb
Point Pleasant	11066		11698		SH: blk-brnshbk, sl frm-trm, sft lp, sbblky-sbplty, tr pp pry, sl gry bd, dsl - ocs sl gsy istr, sl calc, v carb

Please insert additional pages as applicable.

Drilling Contractor SEE ATTACHED
 Address _____ City _____ State _____ Zip _____

Logging Company _____
 Address _____ City _____ State _____ Zip _____

Cementing Company _____
 Address _____ City _____ State _____ Zip _____

Stimulating Company _____
 Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Jackie M. Scholar / Nicholas Staffieri Telephone 724.564.3721 / 724.564.3715
 Signature [Signature] Title Regulatory Compliance Team Lead Date 6/16/2015

API: 47-051-01726	Well Name: Berger	Well Number: Berger 7H
-------------------	-------------------	------------------------

DRILLING CONTRACTORS			
Driller	Driller	Driller	Driller
Name Rocky Mountain Drilling	Name Highlands Drilling LLC	Name Nabors Drilling USA	Name
Address 185 North Vernal Avenue, Suite 2	Address 900 Virginia Street East	Address 10100 NW 10th Street	Address
City - State - Zip Vernal, UT 84078	City - State - Zip Charleston, WV 25301	City - State - Zip Oklahoma City, OK 73127	City - State - Zip
Phone 435-789-3320	Phone 304-380-0114	Phone 405-324-8081	Phone