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

API <u>47</u> 061 _ 01678	galia District Clay	
Quad Blacksville, WV Pad Name Cam		
Farm name Ellen F. Campbell	Well Number 5H	
Operator (as registered with the OOG) Northeast Natura	l Energy, LLC	
Address 707 Virginia Street East, Suite 1200 City Ch	narleston State WV	Zip 25301
As Drilled location NAD 83/UTM Attach an as-drill Top hole Northing 4394764.0 Landing Point of Curve Northing 4395024.7 Bottom Hole Northing 4396985.6	led plat, profile view, and deviation survey Easting 569979.0 Easting 570081.9 Easting 568903.7	
Elevation (ft) 1,293.6' GL Type of Well	■New □ Existing Type of Report ■	Interim □Final
Permit Type 🗆 Deviated 🗀 Horizontal 💄 Horizo	ntal 6A 🛘 Vertical Depth Type 🔻	Deep Shallow
Type of Operation □ Convert □ Deepen ■ Drill □	□ Plug Back □ Redrilling □ Rework □	Stimulate
Well Type □ Brine Disposal □ CBM ■ Gas □ Oil □ Se	condary Recovery Solution Mining Storage	ge □ Other
Type of Completion □ Single □ Multiple Fluids Production □ Cable ■ Rotary Drilling Media Surface hole ■ Air □ Mud □ Fresh Water □ Brin	ater Intermediate hole ▮Air □ Mud [Other
Mud Type(s) and Additive(s)		
Synthetic Based Mud- Horizontal Section:BIO-BASE 365, CALCIUM CHI	LORIDE POWDER, G-SEAL PLUS, HRP, LIME, M-I WATE	E (BARITE), M-I-X II MEDIUM,
MEGADRIL P SYSTEM, MEGADRIL P SYSTEM RENTAL, MEGAMUL, SAFE-CAR	RB 250, VERSATHIN HF, VERSAWET, VG-PLUS, VINSEAL MEDIU	IM, WALNUT NUT PLUG MEDIUM
Date completion activities began 11/26/2016 Verbal plugging (Y/N) Date permission grante	V	/7/2016
Please note: Operator is required to submit a plugging applic	cation within 5 days of verbal permission to plug	5
Freshwater depth(s) ft	Open mine(s) (Y/N) depths Void(s) encountered (Y/N) depths Cavern(s) encountered (Y/N) depths	N RECEIVED Dilion of Oil and Gas
NAME: Hamb Rate DATE: 4/27/2017	France of the state of the stat	Wreviewed by ment of 05/26/2017

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API 47- 061	_ 01678	Farm n	_{ame_} Ellen F.	Campbell		Well	number_5	1	
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)	Did cement co	irculate (Y/N)
Conductor	30	24	50'	N	N/A		N/A		surface
Surface	17.5	13 3/8	1,241'	N	54.5		N/A		bbl return
Coal								, , , ,	
Intermediate 1	12.25	9 5/8	2,413'	N	ļ	40	N/A	Y 14 1	obl return
Intermediate 2			,						32113td111
Intermediate 3									
Production	8.5	5.5	16,277'	N		20	N/A	Y 45 I	obl return
Tubing	N/A	2-3/8	8,541'	N		4.7	N/A		V/A
Packer type and d		/A	0,0			···	14// 4		1//
CEMENT	Class/Type	Numbe	er Slurr		Viold	Volume	Com		Woo
DATA	of Cement	of Sack			Yield t ³/sks)	Volume (ft ³)	Cem Top (1		WOC (hrs)
Conductor	4,500 psi ready n	nix 36.4			.75	27.27	СТ		48
Surface	Class A	1,054	15.2	2 .	1.27	1,271	СТ	S	8
Coal									
Intermediate 1	Class A	889	15.2	2	1.26 1,074	1,074	CT	S	8
Intermediate 2									
Intermediate 3									
Production	50/50 Premium NE - 1.3% R-3.3% M	PA 179 3,160	14.5	5	1.17	2,661	СТ	S	48
Tubing									
•	tion penetrated occurrence.			Loggers T Plug back					
Kick off depth Check all wire	,	□ caliper □ neutron	□ density □ resistivity		ed/directio a ray		duction emperature	□sonic	
Well cored	Yes 💄 No	Convention	onal Side	wall	We	ere cuttings	collected	■ Yes □ No)
DESCRIBE T	HE CENTRALIZ	ER PLACEM	ENT USED FO	R EACH CA	ASING ST	TRING			
Intermediate: bow spr	alizers every 3rd joint or aprox ing centralizers every 3rd j ied spiral centralizers ever	oint or aprox 120'	0' from TD to KOP the	n bow spring from I	KOP to 9 5/8" e	every forth joint or	aprox 140'		
WAS WELL (COMPLETED AS	S SHOT HOLE	∑ ¶Yes □	No DI	ETAILS				
WAS WELL (COMPLETED O	PEN HOLE?	□ Yes 💄 N	o DET.	AILS				
WERE TRAC	ERS USED □ Y	es 🖪 No	TYPE OF T	RACER(S)	USED				

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API	47.	061	_	01678	,
API	47-	061	_	01078	5

Farm name Ellen F. Campbell

_Well number_5H

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)
· · · · · · · · · · · · · · · · · · ·								
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						0	TICE of ()	IVED Il and Gas
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Please insert additional pages as applicable.

WV Department of Environmental Protection 05/26/2017

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API 47- 061	01678	Farm	name_Ellen F.	Campbe	ell	Well	number	.5H	
PRODUCING	FORMATION	<u>((S)</u>	<u>DEPTHS</u>						
Marcellus			8,108.44'	TVD	16,305'	MI)		
100,000									
Please insert ac	dditional pages	as applicable.							
GAS TEST	□ Build up	□ Drawdown	■ Open Flow		OIL TEST	Γ 🗆 Flow	□ Pump		
SHUT-IN PRE	ESSURE Sur	face 3716	psi Botto	m Hole	r	osi DURA	TION C	OF TEST 48 hr	S
OPEN FLOW		Oil fpd	NGL bpd	_ bpd	Water	GAS bpd □ Est		RED BY ■ Orifice □ Pilot	
.ITHOLOGY/ ORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOI DEPTH IN MD	FT DESC			RECORD QUANTITYANI ER, BRINE, OIL, GAS, H2:	
	0		0				*	ee Attachment	
			_						
laga ingart of	dditional pages	ag amplicable							
		as applicable.							
Orilling Contra Address CO Rd			City	Jane Lew		State	WV	Zip_26378	
ogging Comp	oany KLX Energ	y Services		D-2-1-			\A/\ /	a. 26220	
	W. Veterans Memo		City	Bridgepor		State	WV	Zip <u>26330</u>	
Cementing Co. Address 1080 U	mpany Schlumb JS 33	perger	City	Weston		State	WV	Zip _26452	
Stimulating Co	ompany Baker	Hughes							
Address 837 Ph	hilippi Pike		City	Clarksbur	g	State	WV	Zip _26301	
'lease insert ac	dditional pages	as applicable.							
Completed by	Zack Arnold		_			hone 304-20		24 6 5	
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Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry