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

API 47 - 095 - 02195 Cou	nty Tyler	District Centerville	
Quad Shirley Pad	Name SHR	Field/Pool Name N	/A
Farm name Noble Energy, Inc.		Well Number SHR	3 DHS
Operator (as registered with the OOG) Noble	Energy, Inc.	- ,	
Address 1000 Noble Energy Drive	City Canonsburg	State PA	Zip 15317
Top hole Northing Landing Point of Curve Northing	ch an as-drilled plat, profi 4362756.34 4362660.33 4360150.75	le view, and deviation survey Easting 514379.65 Easting 514560.35 Easting 515517.66	
Elevation (ft) 751 GL	`ype of Well ■New □E	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 Reco	overy Solution Mining Sto	orage □ Other
Type of Completion □ Single □ Multiple Drilled with □ Cable ■ Rotary	Fluids Produced Brine	e □Gas □ NGL □ Oil	□ Other
Drilling Media Surface hole Air DMud Production hole Air Mud Fresh W Mud Type(s) and Additive(s) Synthetic Oil Based	/ater □ Brine	ermediate hole Air - Mud	□ Fresh Water □ Brine
Date permit issued8/26/2014 Date	drilling commenced (9/29/2014 Date drilling c	eased 10/3/2014
Date completion activities began Not cor	npleted Date com	nletion activities ceased REC	-casca
			1 7 2017
Please note: Operator is required to submit a please note: Operator	Open mine	WV De	partment of
Coal depth(s) ft NA		countered (Y/N) depthsencountered (Y/N) depths	
Is coal being mined in area (Y/N)	No NAN	PPROV	1 Lived 01/27/2017

API 47- 095	02195	Farm nar	_{ne} Noble Ene	ergy, Inc.		Wel	ll number_Sl	HR 3 DHS	
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft		Basket Depth(s)		t circulate (Y/ N) details below*
Conductor	24"	20"	40	New	H	1-40			
Surface	17 1/2"	13 3/8"	486.0	New	l r	<-55			Υ
Coal									
Intermediate 1	13 3/8"	9 5/8"	2192.6	New		J-55			Υ
Intermediate 2									
Intermediate 3						1			
Production	8-3/4"	5 1/2"	15,581.9	New	P-	110	·		Υ
Tubing	E						·		
Packer type and dep	pth set					•		·	
Comment Details									
CEMENT	Class/Type	Number	Slurry		rield	Volume			WOC
DATA Conductor	of Cement	of Sacks	wt (ppg)) (f	t ³ /sks)	(ft ³)	Top (MD)	(hrs)
Surface	Class A	458	15.6	-	1.40	F40.4			
Coal	Olass A	436	15.0		1.18	540.4			8
Intermediate 1	Class A	841	15.6		1.18	992.4	-		-
Intermediate 2	Old55 A	041	15.6		1.10	992.4	+		8
Intermediate 3				-				-	
Production	Class A	2240	14.50		1.26	2822.4	15	44	8
Tubing	Oldoo / 1	2240	14.50	-	1.20	2022.4	10		
Drillers TD (ft) Deepest formati Plug back proc	ion penetrated	Marcellus		Loggers T Plug back					
Kick off depth (□ caliper □ neutron	□ density □ resistivity	□ deviat		ional □i	nduction temperature	□sonic	
Well cored	Yes □ No	Convention	nal Sidewa	ali	W	ere cutting	s collected	□ Yes □	No
4 Centralizers used on the	Surface String 27 Centraliz	ZER PLACEME! ers on Intermediate String (Box v string every joint to KOP,	v string centralizers on first t	two joints then ever	y third joint to 100	0' from surface).	o centralizers us	EIVED	
WAS WELL C	OMPLETED A	AS SHOT HOLE	□ Yes ■ 1	No DI	ETAILS		JAN WV Der	1 7 2017 partment	of
WAS WELL C	OMPLETED C	PEN HOLE?	□ Yes 🗂 No	DET	AILS _	Er	vironme		
WERE TRACE	ERS USED =	Yes No	TYPE OF TR.	ACER(S) l	USED _				

WR-	35
Rev.	8/23/13

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API 47- 095 _ 02195

Farm name Noble Energy, Inc.

Well number SHR 3 DHS

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
	well not complete		-		Well not complete
	i i			fi .	No data available
				8	
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	The state of the s			V.	
	N.				
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	1)				
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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)
								Well not
								complete
								no data
								available
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Diagga	income addition	nol noces or on	U b-1-			Environn	nental Pr	otection

Please insert additional pages as applicable.

API 47. 095 02195 Farm name Noble Energy, Inc. Well number SHR 3 DHS PRODUCING FORMATION(S) DEPTHS Marcelus 6348 TVD 15810 MD Please insert additional pages as applicable. GAS TEST Devilde Drawdown Dependent Depth Net Dep	WR-35 Rev. 8/23/13								Page of
Presse insert additional pages as applicable. GAS TEST		02195	Farm	name Noble E	nergy, Inc.		Well numbe	SHR 3 DH	HS
Marcellus 6348				name	077		wen numbe	<u>,</u>	
Please insert additional pages as applicable. GAS TEST		<u>FORMATION</u>	<u>(S)</u>	<u>DEPTHS</u>					
GAS TEST	Marcellus			6348	TVD15	610	MD		
GAS TEST					_				
GAS TEST									
SHUT-IN PRESSURE Surface	Please insert ad	lditional pages	as applicable.						
SHUT-IN PRESSURE Surface	GAS TEST	□ Build up	□ Drawdown	□ Open Flow	Ol	LTEST 🗆]	Flow □ Pum	p	
OPEN FLOW Gas Dil Did									hrs
FORMATION DEPTH IN FT NAME TVD TVD MD DEPTH IN FT DEPTH IN FT DEPTH IN FT NAME TVD TVD MD TYPE OF FLUID (FRESHWATER, BRINE, OLL, GAS, H ₂ S, ETC) 0	OPEN FLOW	Gas	Oil	NGL	W	ater	GAS MEAS	URED BY	
FORMATION DEPTH IN FT NAME TVD TVD MD MD TYPE OF FLUID (FRESHWATER, BRINE, OLL, GAS, H ₂ S, ETC)	LITHOLOGY/	ТОР	ВОТТОМ	TOP	BOTTOM				
Please insert additional pages as applicable. Drilling Contractor Precision Drilling Company Address 5400 D big Tyler road City Charleston State W Zip 25313 Logging Company Baker Hughes Address 400 Technology Drive City Canonsburg State PA Zip 15317 Cementing Company Schlumberger Address 4600 J. Barry Ct., Suite 200 City Canonsburg State PA Zip 15317 Stimulating Company State PA Zip 15317 Company Schlumberger Address 4600 J. Barry Ct., Suite 200 City Canonsburg State PA Zip 15317 Company Schlumberger Address 4600 J. Barry Ct., Suite 200 City Canonsburg State PA Zip 15317 Company Schlumberger Address 4600 J. Barry Ct., Suite 200 City Canonsburg State PA Zip 15317 Company Schlumberger Address 4600 J. Barry Ct., Suite 200 City Canonsburg State PA Zip 15317 Company Schlumberger Address 4600 J. Barry Ct., Suite 200 City Canonsburg State Zip JAN 1 7 2017	FORMATION					DESCRIBE I	ROCK TYPE ANI	RECORD QUA	ANTITYAND
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Stimulating Company Address City State Zip JAN 1 7 2017	Cementing Con	npany Schlum	berger						
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Address City State Zip Please insert additional pages as applicable. JAN 17 2017	Stimulating Cor	mpany					Off		
OWIN T & COIL	Address	1141 1	11 11	City		_		Zip	
Completed Inc. Regins Logue 82.1 724.820.2550			as applicable.					JAN 17	7 2017

Title Regulatory Analyst

Submittal of Hydraulic Fracturing Chemical Disclosure Information

Attach copy of FRACFOCUS Registry

SHR 3 DHS			
Formations	Тор	Bas	se
Shale		0	766
Pittsburgh Coal	7	766	775
Shale and Sandstone		775	1222
Dunkard Sand	12	222	1233
Shale	12	233	1404
Gas Sand	14	104	1443
Shale	14	143	1535
1st Salt Sand	15	535	1559
Shale	15	559	1568
2nd Salt Sand	15	668	1613
Shale	16	513	1696
Maxton Sand	16	696	1708
Shale	17	708	1751
Big Lime	17	751	1831
Big Injun		331	2025
Price	20)25	2383
Murrysville		883	2397
Shale		897	2594
50' Sand		94	2596
Shale		96	2649
30' Sand		649	2658
Shale		558	2700
Gordon Stray		00	2715
Shale		15	2751
Gordon		51	2764
Shale		64	2860
Fifth Sand		60	2894
Shale		94	3300
Speechley Sand	33	00	3328
Shale	33	28	4336
Warren Sand	43	36	4345
Shale	43	45	5003
Java Shale	50	03	5174
Pipe Creek Shale	51	.74	5231
Angola Shale	52	31	5856
Rhinestreet	58	56	6272
Cashaqua	62	72	6363
Middlesex	63	63	6396
West River	63	96	6440
Burkett		40	6472
Tully Limestone		72	6503
Hamilton		03	6614
Marcellus		14	6664
Onondaga		64	6667
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MECEIVED
Office of Oil and Gas

JAN 1 7 2017

WV Department of Environmental Protection

Well is a	cated on todo map 897 real	south of Latitude: 39'2	5 00
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WYDEP OFFICE OF OIL & GAS	OPERATOR	PS WELL #: SHR 3 DHS	and the second second second
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CHARLESTON, WV 25304	ę.	COMMENTAL PROPERTY AND ADDRESS OF THE PARTY	FRMIT
Well Type [Oil [Waste Disposal]	Production Deep		
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WATERSHED REALWATERS MODILE ISLAND CHEE	ELEV	ATION 751'z	
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SURFACE OWNER. Nohk Energy	Fr.	ACREACIE 542.81±	15VE V1.
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WELL OPERATOR NOBLE ENERGY, INC. Address 333 SCHNOLOGY DRIVE, SUITE 116	Address 300 VAGA	MA STREET EAST, UNITED CENTER	
City CANONSBURO State PA Zap (ode 15317 City CHARLEST	Seate W Zip Code	25391 01/27/2017