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

API 47 085 1	0246 County Rito	chie	District Murphy						
Quad Smithville 7.5'	Pad Name n		Field/Pool Name Eva Field						
Farm name Yoder, Noah	L. & Emma		Well Number J. E.	Gum #3					
Operator (as registered with	the OOG) Murvin & Meie	er Oil Co.	77.						
Address P. O. Box 396	City	Olney	State IL	Zip 62450					
Тор	hole Northing 4,319,472		sting 498,077.60						
Landing Point of C			Easting n/a						
Bottom	Hole Northing <u>4,319,472</u>	Eas	sting 498,077.6						
Elevation (ft) 1058'	GL Type of W	/ell ■New □ Existing	Type of Report	□Interim B Final					
Permit Type Deviated	d 🗆 Horizontal 🗆 Ho	orizontal 6A 📕 Vertical	Depth Type	□ Deep Shallow					
Type of Operation □ Conv	vert □ Deepen ■ Drill	□ Plug Back □ Redr	rilling Rework	□ Stimulate					
Well Type □ Brine Dispos	sal □ CBM ■ Gas ■ Oil 1	□ Secondary Recovery □ S	Solution Mining Sto	age 🗆 Other					
Type of Completion □ Sin	ala - Multipla - Fluida P	Produced □ Brine ■Gas	□ NGL ■ Oil	□ Other					
Drilled with Cable		-roduced Brille Bdas	I NOL BOIL	d Other					
Drilling Media Surface ho	ole ■Air □Mud □Fresl	h Water Intermediate	hole ∄ Air □ Mud	□ Fresh Water □ Brine					
Production hole Air	□ Mud □ Fresh Water □	Brine							
Mud Type(s) and Additived soap TD 200	(s)								
Date permit issued Septem	nber 8, 2015 Date drilling	commenced November 9, 2							
Date completion activities b	began November 30, 20	Date completion act	ivities ceased Decer	mber 11, 2015					
Verbal plugging (Y/N)	Date permission gr								
Please note: Operator is rec	quired to submit a plugging a	pplication within 5 days of	verbal permission to pl	ug					
	5000000000	Open mine(s) (Y/N)	depths						
Freshwater depth(s) ft	none reported			RECEIV					
	1750'	Void(s) encountered	(Y/N) depths	RECEIV 60 Cas					
Freshwater depth(s) ft Salt water depth(s) ft Coal depth(s) ft			(Y/N) depths	PECEIV Some Gas					

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API 47- 085	10246		Voder Nee	h 0 C	_			
AFI 4/-	- 10240	Farm na	_{me} Yoder, Noa	In L. & Emm	<u>а</u> Wе	II numberJ. E	E. Gum #3	
CASING STRINGS	Hole Size	Casing Size	Depth		rade vt/ft	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*	
Conductor	24"	20"	20'	new	94	Depart(s)	Y	
Surface	17"	11.75"	304'	new	42#	40'	Y	
Coal	1		1 -				<u> </u>	
Intermediate 1	10.625"	8.625"	1275'	new	24#	300'	Y	
Intermediate 2	1				= ₹#	300	<u>'</u>	
Intermediate 3	 						-	
Production	7.875"	4.5"	2487'	new	10.5#	1686'	N	
Tubing	1.575		2701	11041	10.5π	1000	IN IN	
Packer type and d	lepth set							
Comment Details								
CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³/sks)	Volume (ft.²)	Cemer Top (M		
Conductor	Construction	10	15.6	1.18	11.8	стѕ		
Surface	Class A	300	15.6	1.18	354	CTS	8	
Coal								
Intermediate I	Class A	329	14.8	1.38	454	CTS	8	
Intermediate 2								
Intermediate 3								
Production	CBL Poz	200	13.5	1.54	308	1300)'	
Tubing								
Drillers TD (ft Deepest forma Plug back pro	tion penetrated_			oggers TD (ft lug back to (ft				
Kick off depth Check all wire		■ caliper ■ neutron	•	□ deviated/di ■ gamma ray		induction temperature	□sonic	
Well cored c	Yes 🖪 No	.						
						s collected 🗆	Yes 🗆 No	
DESCRIBE T								
1981' 1897'	HE CENTRALIZ	ZER PLACEME		EACH CASIN	G STRING 4	1/2" x 7 7/8": 2455'	2361' 2276' 2192' 2066' ECEIVE	
1981' 1897 WAS WELL (HE CENTRALIZ	ZER PLACEME	NT USED FOR E	EACH CASIN DETAIL	G STRING 4	1/2" x 7 7/8": 2455'		
WAS WELL (COMPLETED O	S SHOT HOLE PEN HOLE?	NT USED FOR E	DETAILS	G STRING 4	1/2" x 7 7/8": 2455' Pl Office (2361' 2276' 2192' 2066' ECEIVE	

API 47- 085 - 10246 Farm name Yoder, Noah L. & Emma Well number J. E. Gum #3

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(a)
1	12-9-2015	2422	2429	20	Formation(s) Berea
2	12-9-2015	2064	2076	36	Injun
-	12 0 2010	2004	2010	30	injun
			-		
<u></u>					
			_		
				-	
	·				

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	12/9/15	30	1680	1900	703	30,000	682	87,000 scf
2	12/9/15	30	1580	1385	1579	30,000	628	83,000 scf
							RE	CE:VED
							Office o	£0.
								r Carrage Gas

Please insert additional pages as applicable.

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API 47- 085 - 10246 Fa			rm name Yoder, Noah L. & Emma				Well	_Well number_J. E. Gum #3				
PRODUCING	FORMATION(<u>S)</u> _	<u>DEPTHS</u>									
same as perfora	ation record			_ TVD			MD					
				_								
					_							
Please insert ad	lditional pages a	s applicable.										
GAS TEST	□ Build up □	Drawdown	Open Flow		OIL	TEST A	Flow c	2 Pump				
SHUT-IN PRE	SSURE Surf	ace 540	_psi Botto	m Hole		psi	DURAT	TION O	F TES	T 72	hrs	
OPEN FLOW	Gas 20 mcf	Oil pd <u>show</u> t	NGL opd <u>-</u>	_ bpd _	Wa -	nter bpd	GAS N	/IEASU nated	RED I	BY fice □ Pile	ot	
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTON DEPTH IN MD						D QUANTITY, NE, OIL, GAS,		
	0		0			11120112	oib (i itb	31111111	DIC, DIC	INE, OIE, ONS,	1125, 2.10)	
Fill	0	5	0	5								
Sd, Sh, RR	5	1934	5	1934								
L. Lime	1934	1989	1934	1989								
Keener	1989	1990	1989	1990								
B. Lime	1990	2041	1990	2041								
B. Injun	2041	2076	2041	2076								
Shale	2076	2422	2076	2422								
Berea	2422	2429	2422	2429								
Shale	2429	2546	2429	2546							<u> </u>	
·												
total depth	2546		2546									
Please insert ad	ditional pages a	s applicable.								<u> </u>		
Drilling Contra	ctor Top Drillin	g Corporation										
Address 107 La	ncaster Street Suit	te 301	City	Marietta		.	State	ОН	Zip	45750		
Logging Compa	any Casedhole S	Solutions	City	Weatherfo	ord		State	ок	Zip	73096		
		y Sondoos							•			
Address 3990 R	npany CJ Energ ogerdale	y dervices	City	Houston			State	TX	Zip	77042		
Stimulating Co Address 109 So	mpany Produc	ers Service Cor	p. City	Zanesville	_		State	ОН	Zip	43701		
	difional pages a	•					_		- •			
Completed by	Kate M. Blackfo	ord / /			_	Telephone	618-395	-4405				
Signature	alen/Ka	def	Title E	xecutive Vice	e-Pre	sident		Date 3	9/2016			
Submittal of H	ydraulic Fractur	ing Chemical D	Disclosure Info	rmation	At	tach copy o	f FRACE	ocus	Regist	iry		