Page	of
	·_

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

API 47 039 06	352 _{County} Kanawi	na I	District Union	
Quad Big Chimney	Pad Name n/a		Field/Pool Name _	n/a
Farm name D. Haynes ET			Well Number D.	
Operator (as registered with t	he OOG) Reserve Oil and O			
Address 929 Charleston F		encer	State WV	Zip 25276
As Drilled location NAD 8 Top ho Landing Point of Cu Bottom He	ole Northing (42.51.341) 38 rve Northing	ed plat, profile view, and .4007250 Fosti Easti Easti	ing(<u>0446818) -8/</u> ng	6091350_
Elevation (ft) 1023	GL Type of Well	■New □ Existing	Type of Repor	t □Interim BFinal
Permit Type Deviated	□ Horizontal □ Horizon	ntal 6A B Vertical	Depth Type	□ Deep ■ Shallow
Type of Operation □ Conver	t 🗆 Deepen 🖺 Drill 🖯	Plug Back 🗆 Redrill	ling Rework	■ Stimulate
Well Type	□ CBM ■ Gas □ Oil □ Sec	condary Recovery Sol	lution Mining 🗆 S	torage 🗆 Other
Type of Completion □ Single Drilled with □ Cable ■ R	e □ Multiple Fluids Produ Rotary	ced □ Brine ■Gas	□ NGL □ Oil	□ Other
Drilling Media Surface hole	e Bi Air □ Mud □Fresh Wa	ter Intermediate he	ole 🖪 Air 🗆 Mu	d 🖪 Fresh Water 🗆 Brine
Production hole Air 🗆 I	Mud ■ Fresh Water □ Brin	e		
Mud Type(s) and Additive(s) n/a	····			
Date completion activities beg	2013	_ Date completion activ	Date drilling rities ceased	T/4T/00/40
Please note: Operator is requi	ired to submit a plugging applic			
Freshwater depth(s) ft	4000 4000	Open mine(s) (Y/N) de	pths Office	RENOIVED of OiNond Gas OT 15 2012
Salt water depth(s) ft		Void(s) encountered (Y	(/N) depths	NO Gas
Coal depth(s) ft	NO.	Cavern(s) encountered	(Y/N) depths0 WV D Environment	CT 1 5 2013 Popartment P\$/06/2013 Pental Protection
			Oi II U	enta l Protection

WR-35 Rev. 8/23/13											Page of
API 47- 039	_ 06352	Farm na	ame_D	. Haynes E	T AL		We	ell nu	mberD. H	layne	s #1
CASING STRINGS	Hole Size	Casing Size	D	• • •	ew or Jsed	Grade wt/ft		Bas Den	iket th(s)		nent circulate (Y/N) ide details below*
Conductor	17 1/2	13 3/8		^	New		18.0	T	none		ment by hand to surface
Surface	12 1/4	9 5/8			New		26.0	Ι.	1 at 84'	,	es, 7 bbls to pit
Coal				-		-					
Intermediate 1	8 7/8	7	207	71.45	New	1	7.0	1	at 295'	٠,	Yes, 5 bbl to pit
Intermediate 2	0 1.70	<u> </u>									<u></u>
Intermediate 3								1		<u> </u>	
Production	6 1/2	4 1/2	465	52.30	New		11.6	5 at lok	nta: 10,20,30,40,50	ļ—	
Tubing	0 1/2	4 1/2	400	J2.30	INCW	<u> </u>	11.0	1			
Packer type and de	enth set					l				J	
Comment Details					····	······································					
CEMENT DATA	Class/Type of Cement	Number of Saci		Slurry wt (ppg)		(ield ; ³/sks)	Volum (ft. ²)		Ceme Top (M		WOC (hrs)
Conductor	Portland	7		W- (FFB)					GL		8
Surface	Type 1	105	-	14.8	<u> </u>	1.40	147		GL		16
Coal	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-									
Intermediate 1	Unifillight/Type	e 1 140/15	i0	12.7/14.8	1.8	4/1.40	257.6/2	210	GL		16
Intermediate 2	O.I.I.I.I.g. 12 1 yp	1.0.11			1						
Intermediate 3											
Production	Stronglite 25	0 175		12.3	1 :	2.34	409.	 5	464	2	17
Tubing	Outrigino 20				<u> </u>						
Drillers TD (ft) Deepest format Plug back production	tion penetrated	Devonian Shale				D (ft) _466 to (ft)	32	-			
Kick off depth	(ft)										
Check all wire	line logs run	■ caliper □ neutron			⊐ deviat I gamm	ed/directi a ray			action perature	≣son	ic
Well cored	Yes 🖪 No	□ Conventi	onal	□ Sidewall		W	ere cuttin	igs co	ollected	Yes	□ No
DESCRIBE TI		IZER PLACEM	ENT U	JSED FOR E	ACH C	ASING S	TRING .				
9 5/8°: no centrelizere											
7": 3 centralizers use		0.40.50.60									
4 1/2": 6 centralizers	used at joints 10, 20, 30	0, 40, 50, 60									
WAS WELL C	COMPLETED	AS SHOT HOL	E a	Yes 🗆 No	Di	ETAILS			· -		
WAS WELL C	COMPLETED	OPEN HOLE?	□ Ye	es 🖪 No	DET.	AILS _					
WERE TRAC	ERS USED =	Yes B No	TY	PE OF TRAC	ER(S)	USED _		_			

WR-	35
Rev.	8/23/13

Page	of	•
_		

API	47- 039 -	06352	Farm nameD. Haynes ET AL	Well number

PERFORATION RECORD

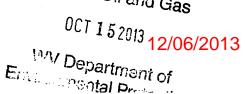
Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	7/17/2013	3669	4554	40	Devonian Shale
2	7/17/2013	2864	3598	40	Huron, Devonian Shale
			·		
ļ					
				-	
				ļ	

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	7/17/204		2078	2342	1930	none	11	1,000,897 scf
2	7/17/204		2129	1601	1535	none	11	1,002,300 scf
	<u> </u>							
					·			
								D
			•				Of:	RECEIVED ice of Oil and G
					-		<u></u>	- or or and G
				†				NOV 252013
							14/0	15
						•	Enviro	nusasan sent
								/ Deportment of filmental Protects
						04		l l
Please	insert additio	nal pages as ap	plicable.			·	ice of Oil	VED and Gas



Rev. 8/23/13								
API 47- 039	_ 06352	Farm 1	name D. Haynes	ET AL		Well number	D. Haynes #1	
PRODUCING Huron Devonian Shale	FORMATION		<u>DEPTHS</u> 2864-3143 3143-4554	_TVD _ 		MD 		
	lditional pages							
			B Open Flow					
SHUT-IN PRE	SSURE Sur	face U	psi Botto	m Hole 50_	psi	DURATION C	OF TEST 12 hr	S
OPEN FLOW	Gas 335 mc					GAS MEASU	JRED BY ■ Orifice □ Pilot	
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FI MD			RECORD QUANTITYANI ER, BRINE, OIL, GAS, H2:	
	0		0					
		ļ						
	<u> </u>	<u> </u>						
		ļ						
	ļ							
								
		<u> </u>						
		-	 					
		<u> </u>	 			Soc Attocher	ent for Formations	
Diago incert o	l dditional pages	ac applicable	l			See Attachin	lent for Formations	
Drilling Contra	actor Kanawha	Valley Drilling				- 40.7	0507C	
Address 929 C	harleston Road		City	Spencer		State	Zip <u>25276</u>	
Logging Comp	nany Nabors Co lest Greens Road,	mpletion & Prod Suite 1100	uction Services City	Co. Houston		State TX	Zip 77067	
								_ _
Cementing Co Address Rt 5 H	mpany Universa all Road	ai weil Services,	Inc. City	Buckhannon		StateWV	Zip 26201	
Stimulating Co	,pa,	rsal Well Service	es, Inc.	Buckhannon	·	State	Zip 26201	
	dditional pages	as applicable.						
Completed b	, Rvan∕Fièlds	<i>(</i>			Telenhone	304-927-5033		
Completed by	Vanie	Ja-Vala	Title C	erk	reichiione	Date	10/11/2013	
Signature	Miller	7 cares	1100				11,000	

WR-35

Page ___ of ___

KB to GL 0 7 70', hole dam Dirt & Clay 0 5 7 12 start soaping Rock 5 18 12 25 Sand & Rock 18 113 25 120 1260', 1/2" Sand & Shale 113 1143 120 1150 stream, start Salt Sand 1143 1348 1150 1355 soaping Shale 1348 1393 1355 1400 Salt Sand 1393 1743 1400 1750 1360', 1 1/2" Maxton 1743 1773 1750 1780 stream. Little Lime 1773 1808 1780 1815 Big Lime 1808 1978 1815 1985 Injun 1978 2015 1985 2022 Sand & Shale 2015 2711 2022 2718 Huron 2711 3143 2718 3150	Formation	TOP (TVD)	BOTTOM (TVD)	TOP (MD)	BOTTOM (MD)	Remarks
Dirk & Clay	KB to GL			0	7	70', hole damp
Sand & Rock	Dirt & Clay	0	5	7	12	
Sand & Shale 113 1143 120 1150 stream, start sant sand 1143 1348 1150 1355 soaping Shale 1348 1393 1355 1400 1750 1360', 1 1/2" Maxton 1743 1773 1750 1780 stream. Little Lime 1773 1808 1780 1815 1985 njun 1978 2015 1985 2022 Sand & Shale 2015 2711 2022 2718 Huron 2711 3143 2718 3150 Shale 3143 4665 3150 4672 Shale 3143 4665 3150 Shale 3143		5	18	12	25	
Salt Sand		18	113	25	120	1260', 1/2"
Shale 1348 1393 1355 1400 Salt Sand 1393 1743 1400 1750 1360', 11/2" Maxton 1743 1773 1750 1780 stream. Little Lime 17773 1808 1780 1815 Big Lime 1808 1978 1815 1985 Injun 1978 2015 1985 2022 Sand & Shale 2015 2711 2022 2718 Huron 2711 3143 2718 3150 Shale 3143 4665 3150 4672 RECEIVED Office of Oil and Nov 2 5 2013 Nov 2 5 2013	Sand & Shale	113	1143	120	1150	stream, start
Salt Sand 1393 1743 1400 1750 1360', 1 1/2" Maxton 1743 1773 1750 1780 stream. Ittle Lime 1773 1808 1780 1815 Big Lime 1808 1978 1815 1985 Injun 1978 2015 1985 2022 Sand & Shale 2015 2711 2022 2718 Huron 2711 3143 2718 3150 Shale 3143 4665 3150 4672 Big Lime 1808 1978 1815 1985			1348	1150	1355	soaping
Maxton 1743 1773 1750 1780 stream. Little Lime 1773 1808 1780 1815 Big Lime 1808 1978 1815 1985 Injun 1978 2015 1985 2022 Sand & Shale 2015 2711 2022 2718 Huron 2711 3143 2718 3150 Shale 3143 4665 3150 4672 3143 4665 3150 4672 3250 4672 3360 EVED Office of Oil and Nov 2 5 2013		1348	1393	1355	1400	
1773				1400	1750	1360', 1 1/2"
Big Lime			1773	1750	1780	stream.
Injun 1978 2015 1985 2022 Sand & Shale 2015 2711 2022 2718 Huron 2711 3143 2718 3150 Shale 3143 4665 3150 4672	Little Lime	1773	1808	1780	1815	
Sand & Shale			1978	1815	1985	
Huron 2711 3143 2718 3150 Shale 3143 4665 3150 4672 RECEIVED Office of Oil and Nov 25 2013					2022	
Shale 3143 4665 3150 4672			2711	2022	2718	
RECEIVED Office of Oil and NOV 25 2013				2718	3150	
Office of Oil and Nov 25 2013	Shale	3143	4665	3150	4672	
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						-
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013			,			
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						· · ·
Office of Oil and Nov 25 2013						
Office of Oil and Nov 25 2013						BECEIVED
MOA 5 2 5013					0890	o of Oil and C
MA Debagas					Cun-	
MA Debagas						NOV 25 2013
Envisore Env		1				
Evil Maria Sala					W	<u>/ ២០៦១ មានការ</u>
					E-Adir.	
					<u>V</u>	
			 			
חיייו איייין					Di-Oi-	VED
RECEIVED						
Office of Oil and Gas		 			Unice of U	ang Gas
OCT 1 5 2013		 			OCT 1	2012