Office of Oil this Gas

06/02/2017

State of West Virginia

Department of Environmental Protection - Office of Oil and Gas

Well Operator's Report of Well Work

API <u>47</u> - 103 Quad Porters Falls			istrict Green	arv
Farm name Martin, Cha			ield/Pool Name Ma	41 y
		Corporation	Well Number #5H	
Operator (as registered wi Address 1300 Fort Pier	th the OOG) Stone Energy roont Dr Suite 201 City	Morgantown	State WV	_{Zip} _26508
	p hole Northing 4,384,806		deviation survey ng 520,087	
Landing Point of			g 519,922	
Botton	1 Hole Northing 4,386,271	Eastin	g 519,084	
Elevation (ft) 906	GL Type of W	ell ■New □ Existing	Type of Report	Interim Final
Permit Type Deviat	ted 🗆 Horizontal 🚪 Hor	rizontal 6A	Depth Type	□ Deep ■ Shallow
Type of Operation □ Cor	nvert Deepen Drill	□ Plug Back □ Redrilli	ng Rework	Stimulate
Well Type 🗆 Brine Dispo	osal □ CBM ■ Gas □ Oil □	Secondary Recovery Solu	ution Mining	rage 🗆 Other
Type of Completion S	ingle □ Multiple Fluids P	roduced □ Brine □Gas	□ NGL □ Oil	□ Other
	■ Rotary	roduced a binic adds	ETTOE E OII	- Other
Difficulties with 12 cubic	a riolary			
Drilling Media Surface	hole ■Air □ Mud ■Fresh	Water Intermediate ho	le ■Air □ Mud	■ Fresh Water □ Brine
Production hole Air	■ Mud □ Fresh Water □ I	Brine		
Mud Type(s) and Additiv	re(s)			
	nich includes Caustic Soda,	Barite, Lime, New-Drill, F	Perma-Lose HT, X	an-Plex D, X-Cide 102
Soda Ash, and Sodiu	m Chloride			
		5.0305.634		
Date permit issued9		commenced4/30/2014	Date drilling c	
Date completion activities	began Not Yet Complete	Date completion activi	ties ceased Not Y	et Completed
Verbal plugging (Y/N) _	N Date permission gr		Granted by	
Please note: Operator is r	equired to submit a plugging ap	oplication within 5 days of ver	bal permission to pl	ug
Freshwater depth(s) ft	108	Open mine(s) (Y/N) dep	oths	N
Salt water depth(s) ft	None Reported	Void(s) encountered (Y	1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1/ 1	N
Coal depth(s) ft	632, 716 and 748	Cavern(s) encountered (N
Is coal being mined in are	a (Y/N)			
	APPR	UWED		Reviewed by:

NAME: Sun R

DATE: 5-25-M

Rev. 8/23/13

100.0,25,15							
API 47- 103	- 02924	Farm n	_{ame} Martin, (Charles and	d GwendoW	ell number <u>#5</u>	<u>H</u>
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	24"	20"	90'	New	LS - 94.1 ppf		N - GTS
Surface	17.5"	13.375"	877'	New	J55 - 54.5 ppf	111' & 184'	Y - CTS
Coal	17.5"	13.375"	877'	New	J55 - 54.5 ppf	111' & 184'	Y - CTS
Intermediate 1	12.25"	9.625"	2,236'	New	J55 - 36 ppf		Y - CTS
Intermediate 2							
Intermediate 3							
Production	8.75"	5.5"	11,947'	New	P110 - 20 ppf		N - TOC @ 783' Calculated
Tubing							
Packer type and de	epth set	TAM CAP Inflata	ble Packer on 9.6	325" Casing S	tring @ 754'		

Comment Details Circulated 12 bbls cement to surface on 13.375" casing string. Circulated 26 bbls cement to surface on the 9.625" casing string. Did not circulate any cement to surface on the 5.5" casing string. TOC on 5.5" calculated to be @ 783'.

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	Type 1	34	15.6	1.18	40	Surface	24.0
Surface	HalCem Class "A"	670	15.6	1.21	811	Surface	8.0
Coal	HalCem Class "A"	670	15.6	1.21	811	Surface	8.0
Intermediate 1	Lead-10% Salt Tail-HalCem	Lead-400 Tail-400	Lead-15.6 Tail-15.6	Lead-1.24 Tail-1.21	Lead-496 Tail-484	Surface	12.0
Intermediate 2							
Intermediate 3							-
Production	Lead-TunedSpacer3 Tail-VeriCem	Lead-279 Tail-2,350	Lead-14.5 Tail-15.2	Lead-1.51 Tail-1.20	Lead-421 Tail-2,820	783' Calculated	7.0
Tubing							

Drillers TD (ft) 11.964 MD / 6.549 TV Deepest formation penetrated MPlus back procedure	arcellus Shale		Loggers TD (ft) N/A Plug back to (ft)					
Kick off depth (ft) 5,668 MD / 5,665	VU	· · ·						
Check all wireline logs run	□ caliper □ neutron	□ density □ resistivity	deviated/directional gamma ray	□ induction □ temperature	□sonic			
Well cored □ Yes ■ No	Conventio	nal Sidewa	ıll Were cu	ittings collected I	■ Yes □ No			
DESCRIBE THE CENTRALIZ joints 4, 8, 12, 16 and 20. Intermediate casing had bow s				G Surface casing had b	ow spring centralizers placed on			
Production casing had rigid spiral centralizers pla	ced on every fourth joi	nt beginning with joint 7 to	o joint 143. Ran a total of 35 rigid spira	al centralizers. Ran bow spri	ing centralizers from joint 147 to joint 232			
on every fifth joint. A total of 18 bow spring cent	ralizers were run.							
WAS WELL COMPLETED AS	SHOT HOLE	□ Yes ■ N	lo DETAILS					
WAS WELL COMPLETED OP	EN HOLE?	□ Yes ■ No	DETAILS					
WERE TRACERS USED DY	es 🖪 No	TYPE OF TRA	ACER(S) USED					

Page	3	of	

WR-35 Rev. 8/23/13

API 4	₇₋ 103 _	02924	Farm name Martin, Charles and Gwendo	Well number_#5H
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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
-				<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)
								, , ,
								· —-
			,					

Please insert additional pages as applicable.

WR-35 Rev. 8/23/13									Page <u>4</u> of
API 47- 103	02924	Farm	_{name} Martin, C	Charles	and Gwendo	_Well r	umber_#	5H	
PRODUCING I	FORMATION(S)	DEPTHS						
Not Yet Comple				_ TVD		MD			
				_		_			
Please insert ad	ditional pages a	s applicable.		-	-	_			
GAS TEST	□ Build up □	Drawdown	□ Open Flow		OIL TEST 🗆 F	low [Pump		
SHUT-IN PRES	SSURE Surf	ace	psi Botto	m Hole_	psi	DURAT	TON OF	TEST _	hrs
OPEN FLOW	Gas mcf	Oil jpd	NGL bpd		Water bpd		IEASURI nated □		□ Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTO DEPTH I MD	N FT DESCRIBE R				UANTITYAND OIL, GAS, H2S, ETC)
See Attached Sheet	0		0						
See Attached Sheet									
									5-1-1
Please insert ad	ditional pages a	s applicable							
			xon Drilling (horiz	rontal)					
Address 900 Virg					on / The Woodlands	State	WV / TX	Zip 25	301 / 77381
Logging Compa						_			
Address 124 Vis			City	Charlero	i / Weston	_ State	PA/WV	Zip _150	022 / 26452
Cementing Con	npany Halliburto	on							
Address 121 Cha			City	Cannons	sburg	_ State	PA	Zip_15:	317
Stimulating Cor	mpany								
Address			City			_ State		Zip	
Please insert ad	ditional pages a	s applicable.							
Completed by	Greg Zofchak				Telephone	304-225	-1600		
Signature	Dy 3/1	1	Title Di	rilling Engi			Date 2/15	/17	
Submittal of Hy	draulic Fractur	ing Chemical	Disclosure Infor	rmation	Attach copy of	FRACE	OCUS R	egistry	

Martin #5H API 47-103-02924

Stone Energy Corporation

	-	Horizontal		D - 14 /ft	D - 44	
	Top (ft TVD)	Top (ft MD)		Bottom (ft TVD)	Bottom (ft MD)	
Sandstone & Shale	Surface	(IL IVID)	*	632	(It IVID)	FW @ 108'
			*			FW @ 108
Coal	632			638		
Sandstone & Shale	638		*	716		
Coal	716		*	734		
Sandstone & Shale	734		*	748		
Coal	748		*	758		
Sandstone & Shale	758		*	1,883	SW @	None Reported
Little Lime	1,883		*	1,913		
Big Lime	1,913		*	2,013		
Big Injun	2,013		*	2,113		
Sandstone & Shale	2,113		*	2,477		
Berea Sandstone	2,477		*	2,507		
Shale	2,507		*	2,679		
Gordon	2,679		*	2,729		
Undiff Devonian Shale	2,729		*	5,602	5,606	
Rhinestreet	5,602	5,606	~	6,142	6,243	
Cashaqua	6,142	6,243	~	6,420	6,502	
Middlesex	6,420	6,502	~	6,440	6,524	
West River	6,440	6,524	~	6,497	6,631	
Geneseo	6,497	6,631	~	6,512	6,655	
Tully Limestone	6,512	6,655	~	6,545	6,721	
Hamilton Shale	6,545	6,721	~	6,594	6,862	
Marcellus	6,594	6,862	~	6,549	11,964	
TD				6,549	11,964	

^{*} From Pilot Hole Log and Driller's Log

[~] From MWD Gamma Log

WR-34 Page 1 of 3 Rev. 10-10

State of West Virginia

Department of Environmental Protection - Office of Oil and Gas Discharge Monitoring Report Oil and Gas General Permit

Company Name:	STONE	ENERGY CORP	ORATION						
API No:	47-103-0	02959			Count	ty:	Wetze	:1	
District:	Green				Well	No:	Martin	#6H (Dr	rilling Only)
Farm Name:	Martin, C	Charles and Gwe	ndo						
Discharge Date/s I	From:(M	MDDYY) NA	1		To: (N	MME	DYY)	N/A	
Discharge Times.	From:	N/A			To:	N/A			
Total Volume to b	e Dispos	sed from this fa	acility (gallo	ons):	41,580				
Disposal Option(s) Utilize	d (write volum	es in gallons	s):					
(1) Land Applica	tion:	N/A		(Include	a topog	graph	ical m	ap of th	e Area.)
(2) UIC:		41,580		Permit N	No.	34-105-23	3619, 34-121-	-23995, 34-121	-24086, 2D0859721
(3) Offsite Dispo	sal:	N/A		Site Loc	ation:	N/A			
(4) Reuse:		N/A		Alternat	e Permi	it Nu	mber:	N/A	
(5) Centralized F	acility:	N/A		Permit N	No.	N/A			
(6) Other method	l :	N/A		(Include	an exp	lanat	ion)		
Follow Instruction	s below	to determine yo	our treatmer	nt categor	ry:				
Optional Pretreat			Cl- mg/l	N/A		mg/l			
1. Do you have	permiss	_		ent from	the Dir			•	
(Y/N) N/A		If yes, who?	N/A			_ and	place	a four ((4) on line 7.
If not go to l									
2. Was Frac Flu	aid or flo	wback put into	the pit? (Y.	/N) <u>No</u>		If yes	, go to	line 5.	If not, go to
line 3.	نه مامام سا	da valva muatna	stmant (aaa	aharra)O ((37/NI)	NI/A		16	4- 1:u- 4
3. Do you have If not, go to l		de value pretier	aumem (see	above): ((1/N) -	IN/A		II yes	, go to line 4
4. Is the Chloric		less than 5000 i	mg/12 (Y/N)	N/A	Ifx	es th	en ent	er a on	e (1) on line 7.
5. Do you have			• ,		_	N/A	1011 0111		go to line 6
If not, enter	-		. 20. (500	u00.0) (_	11 500	, go to inic o
6. Is the DO lev	•	•	l?(Y/N) N//	A	Ify	es, e	nter a	two (2)	on line 7. If
not, enter a t	-	_	`		•	,		• • •	
7. N/A is t	he categ	ory of your pit.	Use the Ap	propriate	e section	n.			
8. Comments	on Pit c	condition: A	closed loop o	drilling sys	stem was	s utiliz	ed on	this well	and as such, no
pit was con	structed	. All cuttings w	ere hauled t	to a perm	itted lar	ndfill.			
	1.77	O. W. D. I		_					
Name of Princi Title of Officer	-		iard L. Toothr	man					
Date Complete	·	ec. VP Appalachia 7/2017							
-		ilty of law that	I have per	conally e	—— vamine	d and	d am f	amiliar	with the
information sub									
of those individ									
information is t				_					
submitting false									
		MIT.] [[]						
		KIK/N		- 	A 41.				
	Signa	ture of a Princi	pai Exec. O	incer or	Authori	zed a	igent.		06/02/20

WR-34 Page 2 of 3

Category 1 Sampling Results

API No: 47-103-02959

	Predi	scharge	Disc	harge	
Parameter	Limits	Reported	Limits	Reported	Uı
pН	6-10		6-10		S
Settling Time	5		N/A	N/A	Da
Fe	6		6		m
D.O.	2.5		2.5		m
Settleable Sol.	0.5		0.5		m
Cl	5,000		5,000		m
Oil	Trace		Trace		Ol
TOC**			Monitor		m
Oil and Grease			Monitor		m
Total Al***			Monitor		m
TSS			Monitor		m
Total Mn	Monitor		Monitor		m
Volume			Monitor		G
Flow			Monitor		Gal/
Disposal Area			Monitor		Ac
*** Al is only rep	orted if the pH	is above 9.0			
, <u>-</u>	-				
Category 2					
Sampling Results					
API No : 47-103-	.02959				

	Predischarge		Discharge		
Parameter	Limits	Reported	Limits	Reported	Units
pН	6-10		6-10	-	S.U
Settling Time	10		N/A	N/A	Days
Fe	6		6		mg/l
D.O.	2.5		2.5		mg/l
Settleable Sol.	0.5		0.5		mg/l
Cl*	12,500		12,500		mg/l
Oil	Trace		Trace		Obs.
TOC**			Monitor		mg/l
Oil and Grease			Monitor		mg/l
Total Al***			Monitor		mg/l
TSS			Monitor		mg/l
Total Mn	Monitor		Monitor		mg/l
Volume			Monitor		Gal
Flow			Monitor		Gal/min
Disposal Area			Monitor		Acres
* Can be 25,000 w	ith inspector's	approval,			

(Inspector's signature): Date: *** Include a description of your aeration technique.

*** Al is only reported if the pH is above 9.0 Aeration Code: WR-34 Page 3 of 3

Category 3
Sampling Results

API No: 47-103-02959

	Predis	Predischarge		Discharge			
Parameter	Limits	Reported	Limits	Reported	Units		
pН	6-10		6-10		S.U		
Settling Time	20		N/A	N/A	Days		
Fe	6		6		mg/l		
D.O.	2.5		2.5		mg/l		
Settleable Sol.	0.5		0.5		mg/l		
Cl*	12,500		12,500		mg/l		
Oil	Trace		Trace		Obs.		
TOC**			Monitor		mg/l		
Oil and Grease			Monitor		mg/l		
Total Al***			Monitor		mg/l		
TSS			Monitor		mg/l		
Total Mn	Monitor		Monitor		mg/l		
Volume			Monitor		Gal		
Flow			Monitor		Gal/min		
Disposal Area			Monitor		Acres		
* Can be 25,000 with inspector's approval,							
(Inspector's signature): Date:							
** Include a description of your aeration technique. Aeration Code:							
*** Al is only reported if the pH is above 9.0.							
Category 4							
Sampling Results							
API No: <u>47</u>	'-103-02959	-					

	Predischarge		Discharge				
Parameter	Limits	Reported	Limits	Reported	Units		
pН	6-10		6-10		S.U		
Settling Time	1		N/A	N/A	Days		
Fe	Monitor		Monitor		mg/l		
D.O.	Monitor		Monitor		mg/l		
Settleable Sol.	Monitor		Monitor		mg/l		
Cl*	12,500		12,500		mg/l		
Oil	Trace		Trace		Obs.		
TOC**		_	Monitor		mg/l		
Oil and Grease			Monitor		mg/l		
TSS			Monitor		mg/l		
Total Mn	Monitor		Monitor		mg/l		
Volume			Monitor		Gal		
Flow			Monitor		Gal/min		
Activated Carbon (0.1	75)		N/A	N/A	lb/Bl		
Date Site Reclaimed	N/A	N/A			10 days from dis.		
Disposal Area			Monitor		Acres		
* Can be 25,000 with inspector's approval,							

(Inspector's signature):

Date: