

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

API 47-103-02923 County Wetzel District Green  
Quad Porters Falls Pad Name Martin Field/Pool Name Mary  
Farm name Martin, Charles and Gwendo Well Number 519178 #3H  
Operator (as registered with the OOG) EQT Production Company  
Address 625 Liberty Avenue, Suite 1700 City Pittsburgh State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,384,805.679 Easting 520,081.144  
Landing Point of Curve Northing 4,384,899.502 Easting 519,734.289  
Bottom Hole Northing 4,386,122.231 Easting 518,920.826

Elevation (ft) 906 GL Type of Well  New  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 Recovery  Solution Mining  Storage  Other \_\_\_\_\_  
Type of Completion  Single  Multiple Fluids Produced  Brine  Gas  NGL  Oil  Other \_\_\_\_\_  
Drilled with  Cable  Rotary

Drilling Media Surface hole  Air  Mud  Fresh Water Intermediate hole  Air  Mud  Fresh Water  Brine  
Production hole  Air  Mud  Fresh Water  Brine  
Mud Type(s) and Additive(s)  
Saturated salt mud which includes Caustic Soda, Barite, Lime, New-Drill, Perma-Lose HT, Xan-Plex D, X-Cide 102, Soda Ash, and Sodium Chloride

Date permit issued 9/30/2013 Date drilling commenced 4/18/2014 Date drilling ceased 9/18/2014  
Date completion activities began 10/10/2018 Date completion activities ceased 10/22/2018  
Verbal plugging (Y/N) N Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 120 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft 1,546 Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 720 and 746 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

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Reviewed by:

Reviewed

DmH  
2-21-19

API 47-103 - 02923 Farm name Martin, Charles and Gwendo Well number 519178 #3H

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"	894'	New	J55 - 54.5 ppf	116' & 197'	Y - CTS
Coal	17.5"	13.375"	894'	New	J55 - 54.5 ppf	116' & 197'	Y - CTS
Intermediate 1	12.25"	9.625"	2,269'	New	J55 - 36 ppf		Y - CTS
Intermediate 2							
Intermediate 3							
Production	8.75"	5.5"	12,097'	New	P110 - 20 ppf		N - TOC @ 1,313' Calculated
Tubing							
Packer type and depth set		TAM CAP Inflatable Packer on 9.625" Casing String @ 766'					

Comment Details Circulated 15.6 bbls cement to surface on 13.375" casing string. Circulated 33 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 @ 1,313'.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Type 1	34	15.6	1.18	40	Surface	24.0
Surface	HalCem Class "A"	670	15.6	1.22	817	Surface	8.0
Coal	HalCem Class "A"	670	15.6	1.22	817	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-Tuned Spacers3 Tail-VariCem	Lead-178 Tail-2,270	Lead-14.5 Tail-15.2	Lead-2.37 Tail-1.20	Lead-422 Tail-2,724	1,313' Calculated	7.0
Tubing							

Drillers TD (ft) 12,099 MD / 6,512 TVD Loggers TD (ft) N/A  
 Deepest formation penetrated Marcellus Shale Plug back to (ft) N/A  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) 5,611 MD / 5,597 TVD

Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Surface casing had bow spring centralizers placed on joints 4, 8, 12 and 16. Intermediate casing had bow spring centralizers placed on joints 4, 8, 12, 16, 20, 24, 28 and 32. Production casing had rigid spiral centralizers placed on every fourth joint beginning with joint 12 to joint 232. Ran a total of 55 rigid spiral centralizers. Ran bow spring centralizers from joint 240 to joint 259 on every eighth joint. A total of 6 bow spring centralizers were run.

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

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API 47- 103 - 02923 Farm name Martin, Charles and Gwendo Well number 519178 #3H

**PERFORATION RECORD**

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
<b>Please See Attached</b>					

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)
<b>Please See Attached</b>								

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API 47- 103 - 02923 Farm name Martin, Charles and Gwendo Well number 519178 #3H

<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>MARCELLUS</u>	<u>6,591'</u> TVD	<u>6,966'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 1,300 psi Bottom Hole N/A psi DURATION OF TEST 186.0 hrs

OPEN FLOW Gas 11,759 mcfpd Oil N/A bpd NGL 15.7 bpd Water 961.9 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H<sub>2</sub>S, ETC)</u>
	<u>DEPTH IN FT</u> <u>NAME TVD</u>	<u>DEPTH IN FT</u> <u>TVD</u>	<u>DEPTH IN FT</u> <u>MD</u>	<u>DEPTH IN FT</u> <u>MD</u>	
	<u>0</u>		<u>0</u>		
<u>See Attached Sheet</u>					

Please insert additional pages as applicable.

Drilling Contractor Highlands (top-hole) & Saxon Drilling (horizontal)  
Address 900 Virginia St. - East / 9303 New Trails Drive City Charleston / The Woodlands State WV / TX Zip 25301 / 77381

Logging Company Scientific Drilling and Schlumberger  
Address 124 Vista Drive / 1178 US HWY 33 East City Charleroi / Weston State PA / WV Zip 15022 / 26452

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Cementing Company Halliburton  
Address 121 Champion Way, Suite 110 City Cannonsburg State PA Zip 15317

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Stimulating Company ProFrac  
Address 777 East Main Street, Suite 3900 City Fort Worth State TX Zip 76102

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Please insert additional pages as applicable.

Completed by Daniel Doebereiner Telephone (412) 395-3205 JA  
Signature  Title Director - Drilling Date 01/17/2019  
WV Environ.

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

API 47-103-02923 County Wetzel District Green  
Quad Porters Falls Pad Name Martin Field/Pool Name Mary  
Farm name Martin, Charles and Gwendo Well Number #3H  
Operator (as registered with the OOG) Stone Energy Corporation  
Address 1300 Fort Pierpont Dr. - Suite 201 City Morgantown State WV Zip 26508

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,384,807 Easting 520,081  
Landing Point of Curve Northing 4,384,891 Easting 519,740  
Bottom Hole Northing 4,386,139 Easting 518,911

Elevation (ft) 906 GL Type of Well  New  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  
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Is coal being mined in area (Y/N) N

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 Deepest formation penetrated Marcellus Shale      Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

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Check all wireline logs run       caliper     density     deviated/directional     induction  
     neutron     resistivity     gamma ray                             temperature     sonic

Well cored     Yes     No      Conventional      Sidewall      Were cuttings collected     Yes     No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING    Surface casing had bow spring centralizers placed on joints 4, 8, 12 and 16. Intermediate casing had bow spring centralizers placed on joints 4, 8, 12, 16, 20, 24, 28 and 32. Production casing had rigid spiral centralizers placed on every fourth joint beginning with joint 12 to joint 232. Ran a total of 55 rigid spiral centralizers. Ran bow spring centralizers from joint 240 to joint 259 on every eighth joint. A total of 6 bow spring centralizers were run.

WAS WELL COMPLETED AS SHOT HOLE     Yes     No      DETAILS \_\_\_\_\_

WAS WELL COMPLETED OPEN HOLE?     Yes     No      DETAILS \_\_\_\_\_

WERE TRACERS USED     Yes     No      TYPE OF TRACER(S) USED \_\_\_\_\_

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### 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 (bbbls)	Amount of Nitrogen/other (units)

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Please insert additional pages as applicable.

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Not Yet Completed</u>	<u>                    </u> TVD	<u>                    </u> MD
<u>                                </u>	<u>                                </u>	<u>                                </u>
<u>                                </u>	<u>                                </u>	<u>                                </u>
<u>                                </u>	<u>                                </u>	<u>                                </u>

Please insert additional pages as applicable.

GAS TEST     Build up     Drawdown     Open Flow                      OIL TEST     Flow     Pump

SHUT-IN PRESSURE    Surface                      psi    Bottom Hole                      psi    DURATION OF TEST                      hrs

OPEN FLOW    Gas                      Oil                      NGL                      Water                      GAS MEASURED BY  
                     mcfpd                         bpd                         bpd                         bpd     Estimated     Orifice     Pilot

<u>LITHOLOGY/ FORMATION</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H<sub>2</sub>S, ETC)</u>
	<u>DEPTH IN FT NAME TVD</u>	<u>DEPTH IN FT TVD</u>	<u>DEPTH IN FT MD</u>	<u>DEPTH IN FT MD</u>	
	<u>0</u>		<u>0</u>		
<u>See Attached Sheet</u>					

Please insert additional pages as applicable.

Drilling Contractor Highlands (top-hole) & Saxon Drilling (horizontal)  
Address 900 Virginia St. - East /9303 New Trails Drive City Charleston / The Woodlands State WV / TX Zip 25301 / 77381

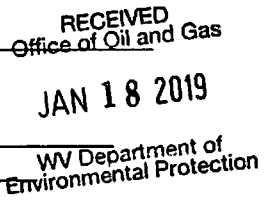
Logging Company Scientific Drilling and Schlumberger  
Address 124 Vista Drive / 1178 US HWY 33 East City Charleroi / Weston State PA / WV Zip 15022 / 26452

Cementing Company Halliburton  
Address 121 Champion Way, Suite 110 City Cannonsburg State PA Zip 15317

Stimulating Company                                   
Address                                  City                                  State                                  Zip                                 

Please insert additional pages as applicable.

Completed by W. Lee Hornsby Telephone 304-225-1600  
Signature                                  Title Drilling Engineer Date 7/7/2014





**519178 47-103-02923-00-00 Perforations**

Stage Number	Perforation Date	Top Perf Depth (ftKB)	Bottom Perf Depth (ftKB)	Number of Shots	Formation
1	9/29/2018	12,036	12,038	0	MARCELLUS
2	10/13/2018	11,791	11,953	40	MARCELLUS
3	10/14/2018	11,591	11,753	40	MARCELLUS
4	10/14/2018	11,391	11,553	40	MARCELLUS
5	10/15/2018	11,191	11,353	40	MARCELLUS
6	10/16/2018	10,991	11,153	40	MARCELLUS
7	10/16/2018	10,791	10,953	40	MARCELLUS
8	10/16/2018	10,591	10,753	40	MARCELLUS
9	10/16/2018	10,391	10,553	40	MARCELLUS
10	10/17/2018	10,191	10,353	40	MARCELLUS
11	10/17/2018	9,991	10,153	40	MARCELLUS
12	10/18/2018	9,791	9,953	40	MARCELLUS
13	10/18/2018	9,591	9,753	40	MARCELLUS
14	10/19/2018	9,391	9,553	40	MARCELLUS
15	10/19/2018	9,191	9,353	40	MARCELLUS
16	10/19/2018	8,991	9,153	40	MARCELLUS
17	10/20/2018	8,791	8,953	40	MARCELLUS
18	10/20/2018	8,591	8,753	40	MARCELLUS
19	10/20/2018	8,391	8,553	40	MARCELLUS
20	10/21/2018	8,191	8,353	40	MARCELLUS
21	10/21/2018	7,991	8,153	40	MARCELLUS
22	10/21/2018	7,791	7,953	40	MARCELLUS
23	10/22/2018	7,591	7,753	40	MARCELLUS
24	10/22/2018	7,391	7,553	40	MARCELLUS
25	10/22/2018	7,191	7,353	40	MARCELLUS

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519178/47-103-02923-00-00 - Stimulated Stages

Stage Number	Stimulation 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	10/13/2018	82	8,530.00	8,784.00	4,274.00	180,160.00	7,093.00	0
2	10/14/2018	98	8,406.00	8,794.00	4,085.00	450,840.00	7,614.00	0
3	10/14/2018	99	8,756.00	9,063.00	3,834.00	449,200.00	7,937.50	0
4	10/15/2018	99	8,408.00	8,802.00	4,189.00	450,440.00	7,643.50	0
5	10/16/2018	100	8,491.00	9,558.00	4,342.00	450,160.00	7,277.50	0
6	10/16/2018	92	8,877.00	9,264.00	4,545.00	450,360.00	7,682.00	0
7	10/16/2018	86	8,869.00	9,269.00	4,304.00	450,250.00	7,687.00	0
8	10/16/2018	92	9,020.00	9,370.00	4,233.00	450,250.00	7,422.00	0
9	10/17/2018	86	8,975.00	9,361.00	4,362.00	450,960.00	7,669.50	0
10	10/17/2018	87	8,853.00	9,247.00	4,653.00	450,420.00	7,487.50	0
11	10/18/2018	86	8,866.00	9,417.00	4,259.00	450,540.00	7,557.00	0
12	10/18/2018	100	8,296.00	8,676.00	4,489.00	450,920.00	8,098.00	0
13	10/19/2018	100	8,688.00	9,011.00	4,543.00	450,100.00	7,978.00	0
14	10/19/2018	96	8,627.00	9,212.00	4,640.00	450,780.00	8,687.50	0
15	10/19/2018	100	8,757.00	9,161.00	4,722.00	450,980.00	7,570.00	0
16	10/20/2018	100	8,419.00	8,958.00	4,022.00	450,060.00	7,597.50	0
17	10/20/2018	95	8,636.00	9,088.00	4,415.00	450,320.00	7,652.00	0
18	10/20/2018	97	8,807.00	9,228.00	4,018.00	450,200.00	7,409.00	0
19	10/21/2018	100	8,524.00	9,032.00	4,733.00	450,260.00	7,523.50	0
20	10/21/2018	100	8,566.00	9,276.00	4,312.00	450,300.00	7,304.00	0
21	10/21/2018	100	8,269.00	9,025.00	4,355.00	450,980.00	6,952.00	0
22	10/22/2018	100	8,402.00	9,295.00	4,312.00	450,640.00	7,021.50	0
23	10/22/2018	98	8,454.00	9,388.00	4,316.00	450,220.00	7,199.00	0
24	10/22/2018	97	8,428.00	9,018.00	4,588.00	450,380.00	7,337.60	0
25	10/22/2018	100	8,218.00	9,292.00	4,681.00	450,060.00	7,692.00	0

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# Hydraulic Fracturing Fluid Product Component Information Disclosure



Job Start Date:	10/10/2018
Job End Date:	10/22/2018
State:	West Virginia
County:	Wetzel
API Number:	47-103-02923-00-00
Operator Name:	EQT Production
Well Name and Number:	519178
Latitude:	39.61268800
Longitude:	-80.76624300
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,591
Total Base Water Volume (gal):	7,941,868
Total Base Non Water Volume:	0

## Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	ProFrac	Carrier/Base Fluid	Water	7732-18-5	100.00000	85.47493	None
ProVis 4.0	ProFrac	Gelling Agent		Listed Below			

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Sand (Proppant)	ProFrac	Proppant							
							Listed Below		
Hydrochloric Acid (15%)	ProFrac	Acidizing					Listed Below		
MC MX 5-3886	Multi-Chem	Bacteria Treatment					Listed Below		
LD-2950	Multi-Chem	Friction Reducer					Listed Below		
Other Chemical (s)	Listed Above	See Trade Name (s) List					Listed Below		
MC MX 2-2822	Multi-Chem	Scale Inhibitor					Listed Below		
MC MX 8-4543	Multi-Chem	Bacteria Treatment					Listed Below		
ProHib 100	ProFrac	Acid Corrosion Inhibitor					Listed Below		
ProFrac	ProFrac	Iron Control					Listed Below		

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ProBreak 100	ProFrac	Gelling Agent		Listed Below					
				Listed Below					
Items above are Trade Names with the exception of Base Water. Items below are the individual ingredients.									
			Silica Substrate	14808-60-7	100.00000	14.17355	None		
			Calcium Nitrate.4H2O	13477-34-4	100.00000	0.03762			
			Calcium Nitrate.4H2O	13477-34-4	100.00000	0.03762	None		
			Hydrochloric Acid	7647-01-0	15.00000	0.03478	None		
			Hydrotreated Light Petroleum Distillate	64742-47-8	30.00000	0.01894	None		
			Amines, Polyethylenepoly-, Ethoxylated, Phosphonomethylated, Sodiumsalts	70900-16-2	30.00000	0.00464			
			Methanol	67-56-1	30.00000	0.00464			
			Amines, Polyethylenepoly-, Ethoxylated, Phosphonomethylated, Sodiumsalts	70900-16-2	30.00000	0.00464	None		
			Methanol	67-56-1	30.00000	0.00464	None		
			Ethoxylated Alcohol	Proprietary	5.00000	0.00316	None		
			Poly(Oxy-1, 2-Ethanediy), .Alpha.-Tridecyl-. Omega.-Hydroxy-, Branched	69011-36-5	5.00000	0.00316	None		
			Proprietary	Proprietary	100.00000	0.00247	None		
			Proprietary	Proprietary	100.00000	0.00247			
			Sodium Chloride	7647-14-5	5.00000	0.00077			
			Sodium Chloride	7647-14-5	5.00000	0.00077	None		
			Methanol	67-56-1	90.00000	0.00048	None		
			Methanol	67-56-1	90.00000	0.00048			

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				Hydrtreated Light Distillate(Petroleum)	64742-47-8	65.00000	0.00019	None
				Gum Guar	9000-30-0	50.00000	0.00015	None
				Citric Acid	77-92-9	100.00000	0.00008	None
				Isopropanol	67-63-0	5.00000	0.00003	None
				Alcohols, C7-9-ISO, C8-Rich	68526-83-0	5.00000	0.00003	
				Alcohols, C7-9-ISO, C8-Rich	68526-83-0	5.00000	0.00003	None
				Propargyl Alcohol	107-19-7	5.00000	0.00003	None
				Xylene	1330-20-7	5.00000	0.00003	
				Xylene	1330-20-7	5.00000	0.00003	None
				Imidazoline	61790-69-0	5.00000	0.00003	
				Propargyl Alcohol	107-19-7	5.00000	0.00003	
				Imidazoline	61790-69-0	5.00000	0.00003	None
				Ethylbenzene	100-41-4	1.00000	0.00001	None
				Ethylbenzene	100-41-4	1.00000	0.00001	
				Ammonium Persulfate	7727-54-0	100.00000	0.00001	None

\* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water  
\*\* Information is based on the maximum potential for concentration and thus the total may be over 100%  
\*\*\* If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.  
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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**Martin #3H**  
**API 47-103-02923**  
**Stone Energy Corporation**

	Horizontal		Bottom (ft TVD)	Bottom (ft MD)	
	Top (ft TVD)	Top (ft MD)			
Sandstone & Shale	Surface		*	728	FW @ 128'
Coal	728		*	732	
Sandstone & Shale	732		*	754	
Coal	754		*	768	
Sandstone & Shale	768		*	1,883	SW @ 1,554
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		*	5,411	5,423
Rhinestreet	5,411	5,423	~	6,132	6,199
Cashaqua	6,132	6,199	~	6,410	6,556
Middlesex	6,410	6,556	~	6,440	6,603
West River	6,440	6,603	~	6,500	6,709
Geneseo	6,500	6,709	~	6,513	6,734
Tully Limestone	6,513	6,734	~	6,545	6,804
Hamilton Shale	6,545	6,804	~	6,591	6,966
Marcellus	6,591	6,966	~	6,512	12,099
TD				6,512	12,099

\* From Pilot Hole Log and Driller's Log

~ From MWD Gamma Log

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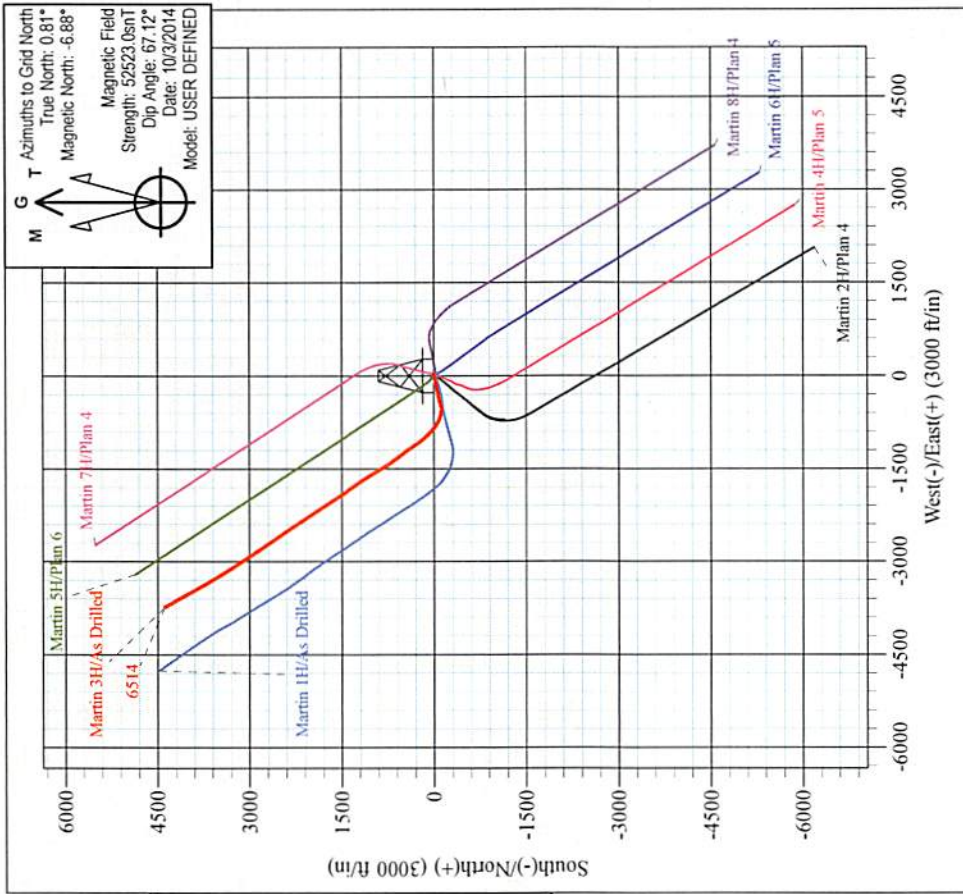
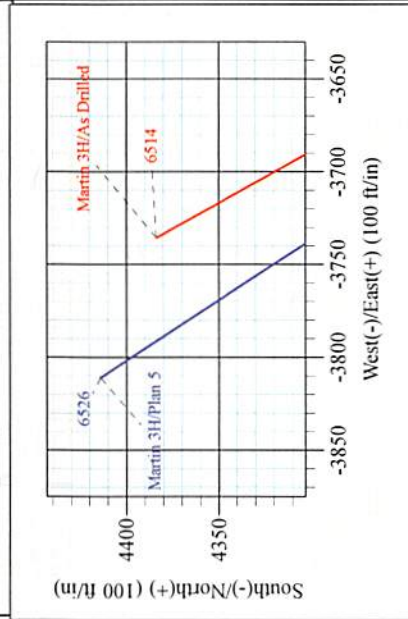
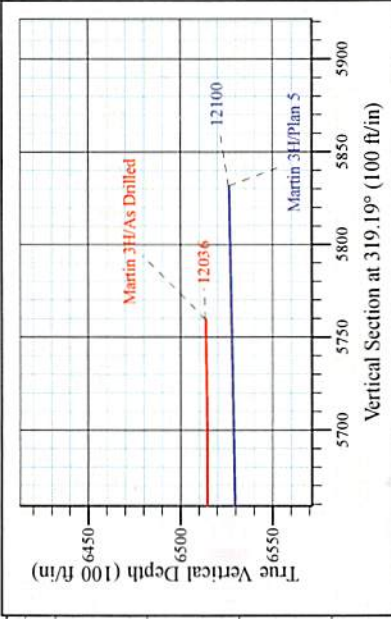
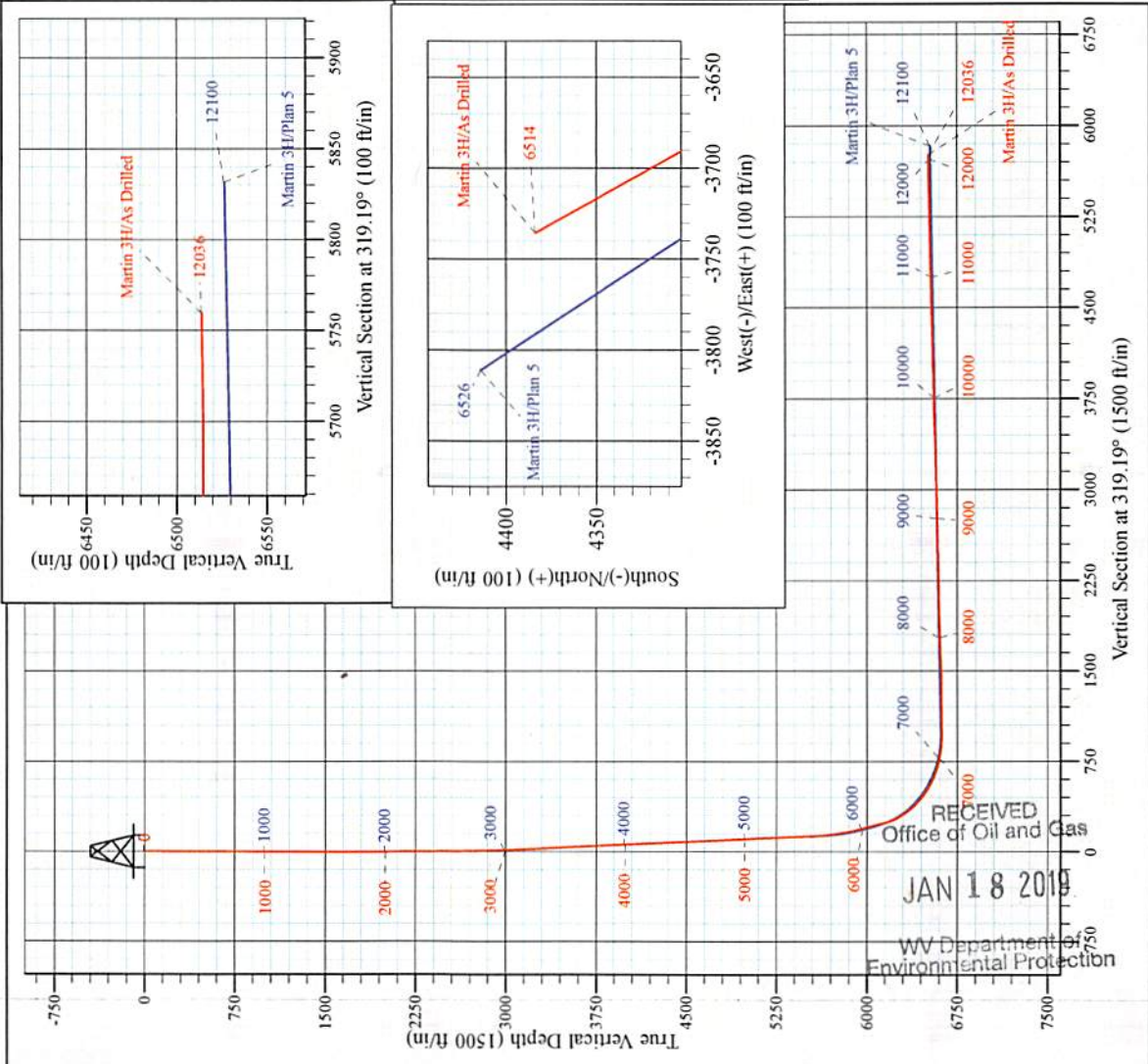
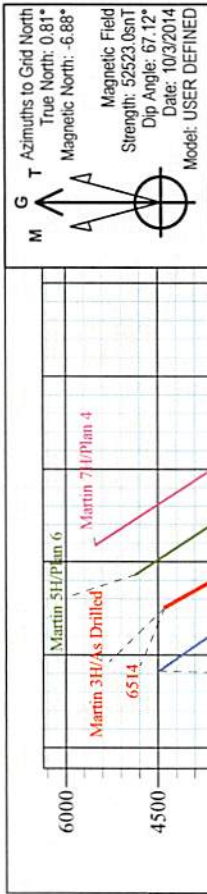
Martin Pad  
 Martin 3H  
 As Drilled  
 GL 906 & KB 10 @ 916.00ft (Highlands 2)  
 Heather Prospect (NAD 27)

PROJECT DETAILS:  
 Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: West Virginia North 4701  
 System Datum: Mean Sea Level



WELL DETAILS: Martin 3H

	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
	0.00	0.00	407779.00	1643273.00	39° 36' 45.675 N	80° 45' 58.475 W

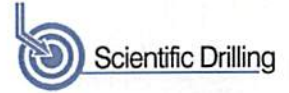


Shane Rhodes  
 13.23, October 03 2014  
 Scientific Drilling International  
 124 Vista Drive  
 Charleroi, PA 15022





**Scientific Drilling International**  
Survey Report



<b>Company:</b>	Stone Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well Martin 3H - Slot 3H
<b>Project:</b>	Heather Prospect (NAD 27)	<b>TVD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Site:</b>	Martin Pad	<b>MD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Well:</b>	Martin 3H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Northeast District

<b>Project</b>	Heather Prospect (NAD 27), Wetzel County, West Virginia		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	West Virginia North 4701		

<b>Site</b>	Martin Pad				
<b>Site Position:</b>		<b>Northing:</b>	407,759.00 usft	<b>Latitude:</b>	39° 36' 45.478 N
<b>From:</b>	Map	<b>Easting:</b>	1,643,274.00 usft	<b>Longitude:</b>	80° 45' 58.459 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	-0.81 °

<b>Well</b>	Martin 3H - Slot 3H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	407,779.00 usft	<b>Latitude:</b>	39° 36' 45.675 N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	1,643,273.00 usft	<b>Longitude:</b>	80° 45' 58.475 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft	<b>Ground Level:</b>	906.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2013	3/27/2014	-8.59	67.11	52,440
	User Defined	9/10/2014	-7.69	67.13	52,532
	User Defined	10/3/2014	-7.69	67.12	52,523

<b>Design</b>	As Drilled				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00		319.19

<b>Survey Program</b>	<b>Date</b>	10/6/2014			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	2,280.00	Survey #1 - Vaughn Gyro (OH)	VES GyroFlex		
2,302.00	5,348.00	Survey #2 - SDI MWD 8-3/4 Hole (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
5,421.00	12,036.00	Survey #3 - Curve and Lateral SDI MWD 8	SDI MWD	SDI MWD - Standard ver 1.0.1	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.22	86.48	100.00	0.01	0.19	-0.12	0.22	0.22	0.00	
<b>First Vaugh Gyro Survey @ 100 MD</b>										
200.00	0.10	104.55	200.00	0.00	0.47	-0.30	0.13	-0.12	18.07	
300.00	0.31	134.76	300.00	-0.21	0.74	-0.65	0.23	0.21	8.51	
400.00	0.55	143.27	400.00	-0.79	1.22	-1.39	0.25	0.24		

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Survey Report



<b>Company:</b>	Stone Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well Martin 3H - Slot 3H
<b>Project:</b>	Heather Prospect (NAD 27)	<b>TVD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Site:</b>	Martin Pad	<b>MD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Well:</b>	Martin 3H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Northeast District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
500.00	0.46	140.17	499.99	-1.48	1.77	-2.27	0.09	-0.09	-3.10	
600.00	0.26	147.42	599.99	-1.98	2.15	-2.90	0.20	-0.20	7.25	
700.00	0.30	136.19	699.99	-2.36	2.45	-3.39	0.07	0.04	-11.23	
800.00	0.33	127.15	799.99	-2.72	2.86	-3.93	0.06	0.03	-9.04	
900.00	0.48	72.92	899.99	-2.77	3.49	-4.38	0.39	0.15	-54.23	
1,000.00	0.31	66.97	999.98	-2.54	4.14	-4.63	0.17	-0.17	-5.95	
1,100.00	0.43	59.67	1,099.98	-2.25	4.71	-4.78	0.13	0.12	-7.30	
1,200.00	0.38	63.91	1,199.98	-1.91	5.33	-4.93	0.06	-0.05	4.24	
1,300.00	0.27	68.83	1,299.98	-1.68	5.85	-5.10	0.11	-0.11	4.92	
1,400.00	0.31	53.83	1,399.98	-1.44	6.29	-5.20	0.09	0.04	-15.00	
1,500.00	0.40	50.33	1,499.97	-1.05	6.78	-5.23	0.09	0.09	-3.50	
1,600.00	0.51	47.76	1,599.97	-0.53	7.38	-5.22	0.11	0.11	-2.57	
1,700.00	0.50	36.53	1,699.97	0.12	7.96	-5.12	0.10	-0.01	-11.23	
1,800.00	0.55	19.10	1,799.96	0.92	8.38	-4.78	0.17	0.05	-17.43	
1,900.00	0.48	16.66	1,899.96	1.78	8.66	-4.31	0.07	-0.07	-2.44	
2,000.00	0.50	11.59	1,999.95	2.61	8.87	-3.82	0.05	0.02	-5.07	
2,100.00	0.64	19.43	2,099.95	3.56	9.14	-3.28	0.16	0.14	7.84	
2,200.00	0.56	11.86	2,199.94	4.56	9.43	-2.71	0.11	-0.08	-7.57	
2,280.00	0.72	2.14	2,279.94	5.45	9.53	-2.10	0.24	0.20	-12.15	
<b>Last Vaughn Gyro Survey @ 2280 MD - First SDI MWD Survey @ 2280 MD</b>										
2,302.00	0.62	357.72	2,301.94	5.71	9.53	-1.91	0.51	-0.45	-20.09	
2,397.00	0.52	270.61	2,396.94	6.22	9.07	-1.22	0.83	-0.11	-91.69	
2,491.01	1.59	245.64	2,490.92	5.69	7.46	-0.57	1.21	1.14	-26.56	
2,585.01	2.89	241.07	2,584.85	4.01	4.20	0.29	1.39	1.38	-4.86	
2,679.01	4.07	246.55	2,678.67	1.53	-0.94	1.77	1.30	1.26	5.83	
2,773.01	5.12	252.78	2,772.37	-1.04	-8.00	4.45	1.24	1.12	6.63	
2,867.01	5.35	251.07	2,865.98	-3.70	-16.16	7.76	0.30	0.24	-1.82	
2,962.01	5.08	247.95	2,960.59	-6.72	-24.24	10.76	0.41	-0.28	-3.28	
3,056.01	5.69	249.10	3,054.17	-9.94	-32.45	13.68	0.66	0.65	1.22	
3,150.01	5.83	256.07	3,147.70	-12.75	-41.44	17.43	0.76	0.15	7.41	
3,244.01	5.92	257.31	3,241.20	-14.97	-50.80	21.87	0.17	0.10	1.32	
3,338.01	5.31	263.81	3,334.75	-16.50	-59.86	26.63	0.94	-0.65	6.91	
3,432.01	5.02	265.97	3,428.37	-17.26	-68.28	31.56	0.37	-0.31	2.30	
3,526.01	5.42	261.65	3,521.98	-18.19	-76.78	36.41	0.60	0.43	-4.60	
3,622.01	5.59	259.41	3,617.54	-19.71	-85.86	41.19	0.29	0.18	-2.33	
3,716.01	5.60	257.48	3,711.09	-21.55	-94.84	45.67	0.20	0.01	-2.05	
3,810.01	5.88	254.36	3,804.62	-23.84	-103.95	49.89	0.45	0.30	-3.32	
3,904.01	6.06	252.36	3,898.11	-26.64	-113.32	53.89	0.29	0.19	-2.13	
3,998.01	5.75	256.37	3,991.61	-29.25	-122.62	57.99	0.55	-0.33	4.2	
4,092.01	5.97	256.02	4,085.12	-31.54	-131.94	62.35	0.24	0.23	-0.37	
4,186.01	6.28	253.92	4,178.59	-34.15	-141.63	66.71	0.41	0.33	-2.23	
4,280.01	6.21	254.36	4,272.03	-36.94	-151.46	71.02	0.09	-0.07	0.47	
4,374.01	4.90	257.57	4,365.59	-39.18	-160.28	75.09	1.43	-1.39	3.41	
4,468.01	4.59	261.14	4,459.26	-40.62	-167.92	78.99	0.46	-0.33	3.80	

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Scientific Drilling International  
Survey Report



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<b>Project:</b>	Heather Prospect (NAD 27)	<b>TVD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Site:</b>	Martin Pad	<b>MD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Well:</b>	Martin 3H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Northeast District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,563.01	4.88	260.18	4,553.94	-41.90	-175.65	83.08	0.32	0.31	-1.01
4,657.01	5.00	260.78	4,647.59	-43.23	-183.64	87.28	0.14	0.13	0.64
4,751.01	5.18	259.65	4,741.22	-44.65	-191.85	91.58	0.22	0.19	-1.20
4,846.01	5.26	259.92	4,835.83	-46.19	-200.36	95.98	0.09	0.08	0.28
4,971.01	5.51	259.93	4,960.28	-48.24	-211.91	101.97	0.20	0.20	0.01
5,065.01	5.97	259.68	5,053.80	-49.90	-221.16	106.76	0.49	0.49	-0.27
5,159.01	5.35	258.31	5,147.35	-51.67	-230.26	111.37	0.68	-0.66	-1.46
5,254.01	5.12	252.43	5,241.95	-53.84	-238.64	115.20	0.61	-0.24	-6.19
5,348.01	5.25	252.90	5,335.57	-56.37	-246.75	118.58	0.15	0.14	0.50
5,421.00	5.52	251.53	5,408.23	-58.47	-253.27	121.26	0.41	0.37	-1.88
5,485.00	5.06	256.79	5,471.96	-60.09	-258.94	123.74	1.04	-0.72	8.22
5,548.00	4.77	259.68	5,534.73	-61.19	-264.22	126.35	0.61	-0.46	4.59
5,580.00	4.85	259.38	5,566.62	-61.68	-266.86	127.71	0.26	0.25	-0.94
5,612.00	5.45	263.94	5,598.49	-62.09	-269.70	129.26	2.27	1.88	14.25
5,643.00	7.93	263.14	5,629.27	-62.50	-273.29	131.29	8.01	8.00	-2.58
5,674.00	10.50	266.72	5,659.87	-62.92	-278.23	134.21	8.49	8.29	11.55
5,706.00	12.77	265.92	5,691.21	-63.34	-284.67	138.10	7.11	7.09	-2.50
5,738.00	13.38	266.52	5,722.38	-63.81	-291.90	142.46	1.95	1.91	1.88
5,770.00	14.23	265.28	5,753.46	-64.36	-299.51	147.02	2.81	2.66	-3.88
5,802.00	16.09	261.59	5,784.34	-65.33	-307.82	151.71	6.55	5.81	-11.53
5,833.00	18.50	260.04	5,813.94	-66.81	-316.91	156.54	7.91	7.77	-5.00
5,865.00	21.55	258.46	5,844.00	-68.87	-327.67	162.01	9.68	9.53	-4.94
5,897.00	23.47	258.76	5,873.56	-71.28	-339.68	168.03	6.01	6.00	0.94
5,929.00	25.69	259.98	5,902.66	-73.73	-352.77	174.73	7.12	6.94	3.81
5,961.00	27.28	258.83	5,931.30	-76.36	-366.79	181.90	5.22	4.97	-3.59
5,993.00	29.45	257.12	5,959.46	-79.54	-381.66	189.22	7.24	6.78	-5.34
6,024.00	32.06	255.85	5,986.10	-83.25	-397.07	196.48	8.68	8.42	-4.10
6,056.00	33.80	253.56	6,012.96	-87.84	-413.84	203.96	6.69	5.44	-7.16
6,087.00	33.94	252.19	6,038.70	-92.93	-430.35	210.90	2.50	0.45	-4.42
6,117.00	33.83	251.27	6,063.60	-98.17	-446.23	217.31	1.75	-0.37	-3.07
6,147.00	33.49	251.08	6,088.57	-103.54	-461.97	223.53	1.19	-1.13	-0.63
6,177.00	32.98	250.53	6,113.66	-108.94	-477.50	229.59	1.97	-1.70	-1.83
6,207.00	32.35	250.69	6,138.92	-114.32	-492.77	235.50	2.12	-2.10	0.53
6,237.00	32.16	255.56	6,164.29	-118.97	-508.08	241.99	8.68	-0.63	16.23
6,268.00	32.55	262.82	6,190.49	-122.07	-524.35	250.28	12.59	1.26	23.42
6,297.00	33.95	268.73	6,214.75	-123.22	-540.19	259.76	12.17	4.83	20.38
6,327.00	35.61	273.18	6,239.39	-122.92	-557.29	271.16	10.11	5.53	14.83
6,358.00	37.48	276.14	6,264.30	-121.41	-575.68	284.32	8.29	6.03	9.55
6,389.00	38.50	279.36	6,288.73	-118.83	-594.59	298.62	7.19	3.29	10.39
6,418.00	40.30	281.95	6,311.14	-115.42	-612.67	313.02	8.40	6.21	8.93
6,449.00	41.93	285.03	6,334.50	-110.66	-632.48	329.57	8.39	5.26	9.94
6,479.00	43.98	287.89	6,356.46	-104.86	-652.08	346.77	9.43	6.83	9.53
6,509.00	46.12	290.65	6,377.65	-97.85	-672.11	365.17	9.66	7.13	9.20

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Survey Report



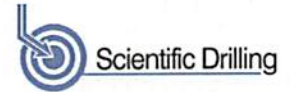
<b>Company:</b>	Stone Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well Martin 3H - Slot 3H
<b>Project:</b>	Heather Prospect (NAD 27)	<b>TVD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Site:</b>	Martin Pad	<b>MD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Well:</b>	Martin 3H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Northeast District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
6,539.00	47.87	292.12	6,398.11	-89.84	-692.54	384.58	6.85	5.83	4.90	
6,570.00	49.17	294.13	6,418.65	-80.72	-713.89	405.44	6.42	4.19	6.48	
6,600.00	50.93	296.06	6,437.91	-70.96	-734.72	426.43	7.66	5.87	6.43	
6,630.00	53.01	298.43	6,456.39	-60.14	-755.72	448.35	9.32	6.93	7.90	
6,661.00	55.37	300.78	6,474.53	-47.72	-777.57	472.03	9.78	7.61	7.58	
6,691.00	57.80	303.37	6,491.05	-34.42	-798.78	495.96	10.84	8.10	8.63	
6,721.00	60.04	305.55	6,506.54	-19.88	-819.96	520.81	9.72	7.47	7.27	
6,752.00	61.81	308.39	6,521.61	-3.58	-841.60	547.28	9.83	5.71	9.16	
6,782.00	63.51	310.61	6,535.39	13.37	-862.15	573.55	8.68	5.67	7.40	
6,813.00	66.09	312.30	6,548.59	31.94	-883.17	601.34	9.67	8.32	5.45	
6,843.00	68.29	313.96	6,560.22	50.85	-903.35	628.84	8.93	7.33	5.53	
6,873.00	71.32	315.34	6,570.57	70.64	-923.37	656.90	10.98	10.10	4.60	
6,903.00	73.92	316.09	6,579.53	91.13	-943.36	685.48	8.99	8.67	2.50	
6,933.00	76.36	316.33	6,587.23	112.06	-963.43	714.43	8.17	8.13	0.80	
6,964.00	77.87	316.62	6,594.14	133.97	-984.24	744.62	4.96	4.87	0.94	
6,994.00	78.63	317.42	6,600.25	155.46	-1,004.26	773.97	3.64	2.53	2.67	
7,024.00	79.77	319.40	6,605.87	177.50	-1,023.82	803.43	7.51	3.80	6.60	
7,054.00	81.65	321.32	6,610.71	200.30	-1,042.70	833.03	8.90	6.27	6.40	
7,084.00	84.35	323.56	6,614.37	223.90	-1,060.85	862.75	11.66	9.00	7.47	
7,115.00	85.97	324.76	6,616.98	248.94	-1,078.94	893.52	6.50	5.23	3.87	
7,147.00	87.14	324.92	6,618.91	275.05	-1,097.33	925.31	3.69	3.66	0.50	
7,178.00	88.82	325.48	6,620.00	300.49	-1,115.01	956.12	5.71	5.42	1.81	
7,210.00	89.66	325.82	6,620.42	326.91	-1,133.06	987.91	2.83	2.63	1.06	
7,274.00	90.24	325.17	6,620.48	379.65	-1,169.32	1,051.52	1.36	0.91	-1.02	
7,337.00	91.07	325.38	6,619.76	431.42	-1,205.20	1,114.17	1.36	1.32	0.33	
7,400.00	91.28	323.83	6,618.47	482.77	-1,241.68	1,176.87	2.48	0.33	-2.46	
7,463.00	90.87	322.12	6,617.29	533.05	-1,279.61	1,239.72	2.79	-0.65	-2.71	
7,527.00	91.21	321.50	6,616.12	583.35	-1,319.17	1,303.64	1.10	0.53	-0.97	
7,591.00	90.94	322.00	6,614.92	633.60	-1,358.79	1,367.57	0.89	-0.42	0.78	
7,654.00	90.50	323.46	6,614.13	683.73	-1,396.94	1,430.44	2.42	-0.70	2.32	
7,718.00	89.90	324.75	6,613.91	735.57	-1,434.46	1,494.20	2.22	-0.94	2.02	
7,781.00	91.28	328.74	6,613.26	788.24	-1,469.00	1,556.64	6.70	2.19	6.33	
7,845.00	92.42	331.71	6,611.19	843.75	-1,500.76	1,619.41	4.97	1.78	4.64	
7,908.00	92.59	330.90	6,608.44	898.96	-1,530.98	1,680.95	1.31	0.27	-1.29	
7,972.00	92.42	330.44	6,605.64	954.71	-1,562.30	1,743.61	0.77	-0.27	-0.72	
8,036.00	92.79	329.38	6,602.73	1,010.02	-1,594.35	1,806.43	1.75	0.58	-1.66	
8,100.00	91.98	327.63	6,600.07	1,064.55	-1,627.76	1,869.53	3.01	-1.27	-2.73	
8,163.00	91.04	325.90	6,598.41	1,117.22	-1,662.27	1,931.96	3.12	-1.49	-2.75	
8,227.00	90.54	325.32	6,597.53	1,170.03	-1,698.42	1,995.55	1.20	-0.78	-0.91	
8,290.00	91.21	325.48	6,596.56	1,221.88	-1,734.19	2,058.17	1.09	1.06	0.25	
8,354.00	91.21	325.59	6,595.21	1,274.63	-1,770.40	2,121.77	0.17	0.00	0.25	
8,418.00	90.30	326.32	6,594.37	1,327.66	-1,806.22	2,185.31	1.82	-1.42	0.25	
8,481.00	90.91	325.44	6,593.70	1,379.81	-1,841.56	2,247.88	1.70	0.97	-1.40	
8,545.00	91.04	324.73	6,592.62	1,432.28	-1,878.18	2,311.53	1.13	0.20	-1.40	

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Survey Report



<b>Company:</b>	Stone Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well Martin 3H - Slot 3H
<b>Project:</b>	Heather Prospect (NAD 27)	<b>TVD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Site:</b>	Martin Pad	<b>MD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Well:</b>	Martin 3H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Northeast District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,608.00	90.64	325.71	6,591.69	1,484.02	-1,914.12	2,374.18	1.68	-0.63	1.56
8,672.00	91.71	325.73	6,590.38	1,536.89	-1,950.15	2,437.75	1.67	1.67	0.03
8,736.00	91.98	325.73	6,588.32	1,589.75	-1,986.17	2,501.30	0.42	0.42	0.00
8,798.00	91.51	327.05	6,586.43	1,641.36	-2,020.48	2,562.78	2.26	-0.76	2.13
8,862.00	91.04	327.58	6,585.01	1,695.22	-2,055.03	2,626.12	1.11	-0.73	0.83
8,925.00	91.27	327.37	6,583.74	1,748.32	-2,088.90	2,688.45	0.49	0.37	-0.33
8,989.00	90.81	327.42	6,582.58	1,802.23	-2,123.38	2,751.79	0.72	-0.72	0.08
9,053.00	91.68	326.69	6,581.18	1,855.92	-2,158.17	2,815.17	1.77	1.36	-1.14
9,116.00	91.58	326.69	6,579.39	1,908.55	-2,192.76	2,877.61	0.16	-0.16	0.00
9,180.00	90.81	327.23	6,578.06	1,962.19	-2,227.64	2,941.00	1.47	-1.20	0.84
9,244.00	91.24	326.10	6,576.91	2,015.65	-2,262.81	3,004.45	1.89	0.67	-1.77
9,307.00	91.58	325.90	6,575.36	2,067.86	-2,298.02	3,066.99	0.63	0.54	-0.32
9,369.00	90.54	326.46	6,574.22	2,119.36	-2,332.53	3,128.51	1.91	-1.68	0.90
9,432.00	91.28	326.54	6,573.22	2,171.89	-2,367.29	3,190.99	1.18	1.17	0.13
9,496.00	91.68	325.85	6,571.56	2,225.05	-2,402.89	3,254.50	1.25	0.63	-1.08
9,558.00	92.39	326.53	6,569.36	2,276.53	-2,437.37	3,315.99	1.59	1.15	1.10
9,622.00	92.75	327.60	6,566.49	2,330.19	-2,472.13	3,379.33	1.76	0.56	1.67
9,686.00	93.09	327.36	6,563.23	2,384.09	-2,506.49	3,442.58	0.65	0.53	-0.38
9,749.00	91.71	326.34	6,560.59	2,436.79	-2,540.91	3,504.96	2.72	-2.19	-1.62
9,811.00	91.08	325.55	6,559.08	2,488.14	-2,575.62	3,566.51	1.63	-1.02	-1.27
9,875.00	91.61	325.29	6,557.58	2,540.82	-2,611.93	3,630.11	0.92	0.83	-0.41
9,939.00	92.02	324.91	6,555.55	2,593.28	-2,648.53	3,693.74	0.87	0.64	-0.59
10,002.00	90.50	324.23	6,554.17	2,644.60	-2,685.04	3,756.45	2.64	-2.41	-1.08
10,066.00	90.24	324.78	6,553.76	2,696.70	-2,722.20	3,820.17	0.95	-0.41	0.86
10,129.00	90.81	324.95	6,553.18	2,748.22	-2,758.45	3,882.86	0.94	0.90	0.27
10,193.00	91.58	326.36	6,551.84	2,801.05	-2,794.55	3,946.44	2.51	1.20	2.20
10,257.00	91.98	326.93	6,549.86	2,854.48	-2,829.72	4,009.86	1.09	0.63	0.89
10,320.00	90.94	328.02	6,548.25	2,907.58	-2,863.58	4,072.18	2.39	-1.65	1.73
10,383.00	90.37	327.85	6,547.53	2,960.97	-2,897.03	4,134.45	0.94	-0.90	-0.27
10,447.00	90.91	327.39	6,546.81	3,015.01	-2,931.30	4,197.75	1.11	0.84	-0.72
10,511.00	91.48	327.28	6,545.48	3,068.88	-2,965.83	4,261.09	0.91	0.89	-0.17
10,574.00	92.39	326.23	6,543.35	3,121.54	-3,000.35	4,323.51	2.20	1.44	-1.67
10,637.00	93.06	325.93	6,540.36	3,173.76	-3,035.47	4,385.98	1.17	1.06	-0.48
10,701.00	91.38	327.07	6,537.88	3,227.08	-3,070.76	4,449.41	3.17	-2.63	1.78
10,765.00	90.64	327.69	6,536.75	3,280.98	-3,105.26	4,512.75	1.51	-1.16	0.97
10,828.00	91.51	327.86	6,535.57	3,334.27	-3,138.85	4,575.03	1.41	1.38	0.27
10,892.00	92.08	327.29	6,533.56	3,388.26	-3,173.14	4,638.32	1.26	0.89	-0.89
10,956.00	91.65	327.91	6,531.48	3,442.27	-3,207.42	4,701.60	1.18	-0.67	0.97
11,019.00	90.70	329.53	6,530.19	3,496.10	-3,240.12	4,763.71	2.98	-1.51	2.57
11,083.00	90.64	330.31	6,529.44	3,551.47	-3,272.20	4,826.59	1.22	-0.09	1.22
11,146.00	91.21	329.29	6,528.42	3,605.91	-3,303.88	4,888.50	1.85	0.90	-1.62
11,210.00	90.94	329.45	6,527.22	3,660.98	-3,336.48	4,951.48	0.49	-0.42	0.25
11,274.00	91.24	329.57	6,526.01	3,716.12	-3,368.95	5,014.44	0.50	0.47	0.19

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Survey Report



<b>Company:</b>	Stone Energy Corporation	<b>Local Co-ordinate Reference:</b>	Well Martin 3H - Slot 3H
<b>Project:</b>	Heather Prospect (NAD 27)	<b>TVD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Site:</b>	Martin Pad	<b>MD Reference:</b>	GL 906 & KB 10 @ 916.00ft (Highlands 2)
<b>Well:</b>	Martin 3H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	As Drilled	<b>Database:</b>	Northeast District

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,337.00	90.98	330.95	6,524.78	3,770.81	-3,400.20	5,076.25	2.23	-0.41	2.19	
11,401.00	90.00	331.76	6,524.24	3,826.97	-3,430.87	5,138.81	1.99	-1.53	1.27	
11,464.00	90.87	332.59	6,523.76	3,882.68	-3,460.28	5,200.20	1.91	1.38	1.32	
11,527.00	92.05	333.00	6,522.15	3,938.69	-3,489.07	5,261.41	1.98	1.87	0.65	
11,591.00	91.31	331.51	6,520.28	3,995.31	-3,518.85	5,323.73	2.60	-1.16	-2.33	
11,655.00	91.04	331.33	6,518.97	4,051.50	-3,549.46	5,386.26	0.51	-0.42	-0.28	
11,718.00	91.17	330.64	6,517.75	4,106.58	-3,580.01	5,447.92	1.11	0.21	-1.10	
11,782.00	90.64	329.92	6,516.74	4,162.16	-3,611.74	5,510.72	1.40	-0.83	-1.13	
11,845.00	91.68	330.47	6,515.46	4,216.81	-3,643.05	5,572.55	1.87	1.65	0.87	
11,909.00	89.70	331.34	6,514.69	4,272.73	-3,674.16	5,635.21	3.38	-3.09	1.36	
11,973.00	90.34	330.80	6,514.67	4,328.74	-3,705.12	5,697.83	1.31	1.00	-0.84	
<b>Last SDI MWD @ 11973 MD</b>										
12,036.00	91.24	331.39	6,513.80	4,383.89	-3,735.57	5,759.47	1.71	1.43	0.94	
<b>Projection to Bit @ 12036 MD</b>										

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	0.01	0.19	First Vaugh Gyro Survey @ 100 MD
2,280.00	2,279.94	5.45	9.53	Last Vaughn Gyro Survey @ 2280 MD
2,280.00	2,279.94	5.45	9.53	First SDI MWD Survey @ 2280 MD
11,973.00	6,514.67	4,328.74	-3,705.12	Last SDI MWD @ 11973 MD
12,036.00	6,513.80	4,383.89	-3,735.57	Projection to Bit @ 12036 MD

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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Well Operator's Report of Well Work



Well Number: PFS27H3 (519178)

API: 47 - 103 - 02923

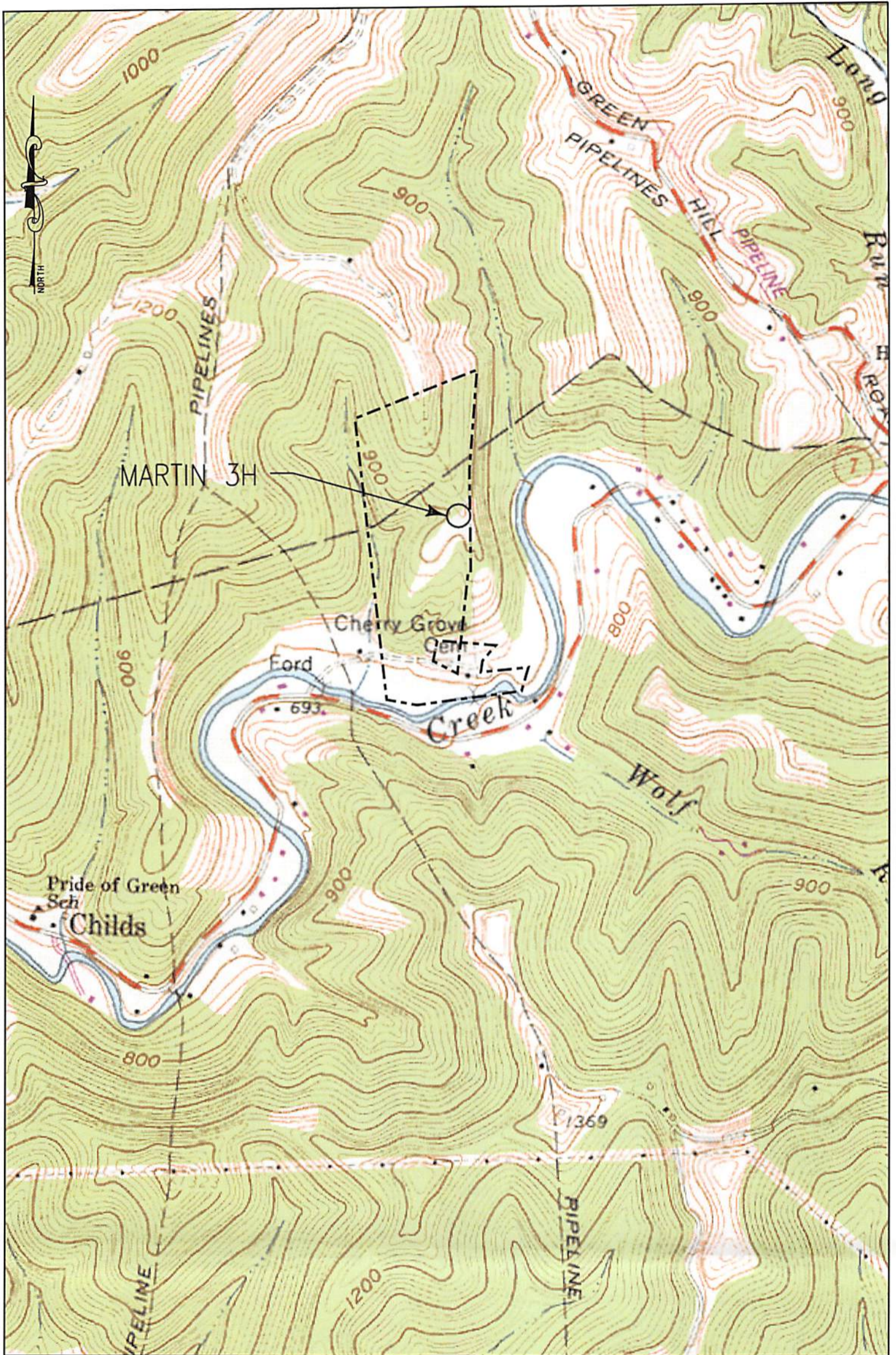
Submission:  Initial  Amended

Notes: Please Note That Stone Energy Corporation Performed The Drilling Operations On This Well And Submitted An Initial Report (Copy Attached). EQT Subsequently Performed The Stimulation Operations, Information Regarding Which Is Reported In The Following Amended WR-35 & Referenced Attachments.

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WV Department of  
Environmental Protection



KEYSTONE CONSULTANTS, INC.  
 32 EAST MAIN STREET,  
 CARNEGIE, PA 15106  
 412-278-2100

1" = 1000'  
 PORTERS FALLS 7.5'

EQT PRODUCTION COMPANY  
 115 PROFESSIONAL PLACE  
 PO BOX 280  
 BRIDGEPORT, WV 26330



**Martin 3H  
Martin  
EQT Production Company**



**NOTES ON SURVEY**

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

- LEGEND**
- ⊕ Active Well Location
  - ⊕ Plugged Well Location
  - ⊕ Never Issued
  - ⊕ Permit Issued
  - ① Tract Identification
  - Proposed Gas Well
  - Located Corner, as noted
  - Surface Tract Lines
  - Reference Line
  - Lease Boundary
  - Creek or Drain
  - ⊙ WV County Route
  - ⊙ WV State Route

Tract ID.	Acres	Owner
2&7	105	SNS Ventures, LLC et al
3	70.17	Anne L. Spencer et al
4	115.25	Anne L. Spencer et al
5 & 6	120.79	Delmas F. Neff et ux



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smit*  
L. L. S. 687



FILE NO: W2175 (BK 59-37)  
 DRAWING NO: \_\_\_\_\_  
 SCALE: 1" = 1200'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: SG-GPS (OPUS)

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

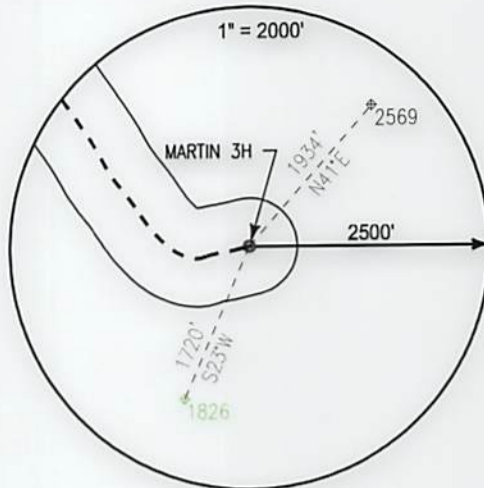
DATE: JANUARY 18 20 18  
 OPERATORS WELL NO: MARTIN 3H  
 API WELL NO  
47 - 103 - 02923  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION ELEVATION: 909' WATERSHED: LITTLE FISHING CREEK QUADRANGLE: PORTERS FALLS 7.5'  
 DISTRICT: Green COUNTY: Wetzel  
 SURFACE OWNER: Charles & Gwendolyn Martin ACREAGE: 54 ±  
 ROYALTY OWNER: SNS Ventures, LLC et al LEASE NO: 873397 ACREAGE: 105 ±  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,600'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
Bridgeport, WV 26330 Bridgeport, WV 26330

**Martin 3H  
Martin  
EQT Production Company**

Tract ID.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	3	5	Wetzel	Green	Charles W. Martin	1.13
2	3	2.1	Wetzel	Green	Gwendolyn L. Stout	56.49
3	14	12	Wetzel	Magnolia	W. D. Lemon	35.31
4	14	9	Wetzel	Magnolia	W. D. Lemon	91.67
5	9	42	Wetzel	Magnolia	Delmas F. Neff	71.17
6	9	44	Wetzel	Magnolia	Delmas F. Neff	38.15
7	3	2	Wetzel	Green	Gwendolyn L. Stout	45.07
8	3	2.2	Wetzel	Green	Gwendolyn L. & Charles Martin	4.96
9	9	40	Wetzel	Magnolia	Elizabeth W. Hawkins	17.36
10	9	41	Wetzel	Magnolia	Elizabeth W. Hawkins	21.64
11	9	39	Wetzel	Magnolia	Robert B. Litman	24.11
12	3	30.3	Wetzel	Green	Gwendolyn L. Stout	0.73
13	3	30.1	Wetzel	Green	Thomas Dwight	2.13
14	3		Wetzel	Green	N/A	1.36
15	2	33.2	Wetzel	Green	Charles W. Martin	4.02
16	2	21	Wetzel	Green	Delbert L. Leasure	98.57
17	14	8	Wetzel	Magnolia	Delbert L. Leasure	28.17
18	14	7	Wetzel	Magnolia	C.M. & Lucy Maury	36.03
19	2	33	Wetzel	Green	Douglas L. Steele	146.31
20	9	36.2	Wetzel	Magnolia	Ronald A. Dewitt	43.36
21	9	36	Wetzel	Magnolia	Delmas F. Neff	5.99
22	14	11	Wetzel	Magnolia	W. D. Lemon	53.19
23	3	7	Wetzel	Green	Charles W. Martin	10.65
24	3	6	Wetzel	Green	Charles W. Martin	0.32
25	3	26	Wetzel	Green	Kernel E. Greathouse Estate	42.1
26	3	25	Wetzel	Green	Ethel Greathouse Estate	1.03
27	3	24	Wetzel	Green	Kernel Greathouse Estate	1.69
28	14	10	Wetzel	Magnolia	W. D. Lemon	20.62
29	14	3	Wetzel	Magnolia	W.D. Lemon	50.50
30	9	45.1	Wetzel	Magnolia	W.D. Lemon	29.74
31	14	2	Wetzel	Magnolia	Robert B. Litman	63.22
32	3	3	Wetzel	Green	Charles W. Martin	20.2
33	9	43	Wetzel	Magnolia	Doretta R. Rush	4.04
34	9	43.1	Wetzel	Magnolia	Keith R. Pyles	7.13
35	9	29.3	Wetzel	Magnolia	Delmas F. & Linda L. Neff	18.72
36	9	42.1	Wetzel	Magnolia	Delmas F. & Linda L. Neff	0.67
37	9	42.3	Wetzel	Magnolia	Delmas F. & Linda L. Neff	5.56
38	14	4	Wetzel	Magnolia	W. D. Lemon	14.86
39	14	5.2	Wetzel	Magnolia	Tracy Living Trust	100.19



**Notes:**  
**MARTIN 3H As-Built coordinates are**  
 NAD 27 N: 407,779.003 E: 1,643,273.000  
 NAD 27 Lat: 39.613541 Long: -80.776243  
 NAD 83 UTM N: 4,384,805.679 E: 520,081.144  
**MARTIN 3H As-Built Landing Point coordinates are**  
 NAD 27 N: 408,105.913 E: 1,642,139.940  
 NAD 27 Lat: 39.613541 Long: -80.770281  
 NAD 83 UTM N: 4,384,899.502 E: 519,734.289  
**MARTIN 3H As-Built Bottom Hole coordinates are**  
 NAD 27 N: 412,162.884 E: 1,639,537.440  
 NAD 27 Lat: 39.624577 Long: -80.779723  
 NAD 83 UTM N: 4,386,122.231 E: 518,920.826  
 West Virginia Coordinates system of 1927 (North Zone)  
 based upon Differential GPS Measurements  
 Plat orientation, Corner and well ties are based upon  
 the grid north meridian  
 Well location references are based upon the grid north  
 meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.

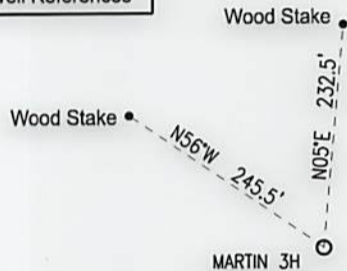
**LEGEND**

- ⊕ Active Well Location
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - - - Reference Line
- ▬ Lease Boundary
- ~ Creek or Drain
- ⊙ WV County Route
- ⊠ WV State Route

**MARTIN PAD**

- MARTIN 3H ○ ○ MARTIN 5H
- MARTIN 1H ○ ○ MARTIN 7H
- MARTIN 2H ○ ○ MARTIN 8H
- MARTIN 4H ○ ○ MARTIN 6H

**Well References**



1" = 200'

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smalls*  
 L. L. S. 687



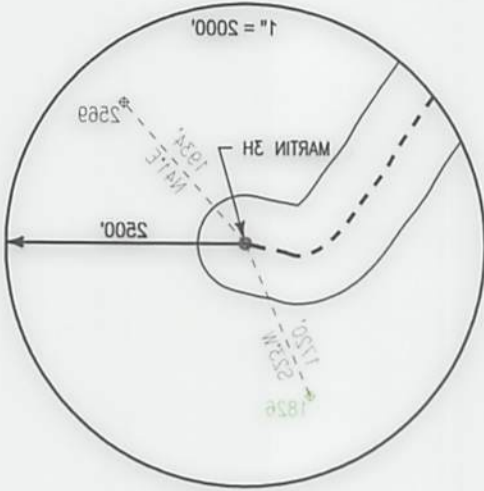
FILE NO: W2174 (BK 59-37)  
 DRAWING NO: \_\_\_\_\_  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY:  
1:2500  
 PROVEN SOURCE OF ELEVATION:  
SG-GPS (OPUS)

STATE OF WEST VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 OIL AND GAS DIVISION

DATE: JANUARY 18 20 18  
 OPERATORS WELL NO: MARTIN 3H  
 API WELL NO  
47 - 103 - 02923  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION ELEVATION: 909' WATERSHED: LITTLE FISHING CREEK QUADRANGLE: PORTERS FALLS 7.5'  
 DISTRICT: Green COUNTY: Wetzel  
 SURFACE OWNER: Charles & Gwendolyn Martin ACREAGE: 54 ±  
 ROYALTY OWNER: SNS Ventures, LLC et al LEASE NO: 873397 ACREAGE: 105 ±  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,600'  
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
Bridgeport, WV 26330 Bridgeport, WV 26330

Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	3	2	Wetzel	Green	Charles W. Martin	1.13
2	3	2.1	Wetzel	Green	Gwendolyn J. Stout	26.49
3	14	12	Wetzel	Magnolia	W. D. Lemon	32.31
4	14	9	Wetzel	Magnolia	W. D. Lemon	91.67
5	9	42	Wetzel	Magnolia	Delmas F. Neff	17.17
6	9	44	Wetzel	Magnolia	Delmas F. Neff	38.12
7	3	2	Wetzel	Green	Gwendolyn J. Stout	42.07
8	3	2.2	Wetzel	Green	Gwendolyn J. & Charles Martin	4.92
9	9	40	Wetzel	Magnolia	Elizabeth W. Hawkins	17.36
10	9	41	Wetzel	Magnolia	Elizabeth W. Hawkins	21.64
11	9	39	Wetzel	Magnolia	Robert B. Litman	24.11
12	3	30.3	Wetzel	Green	Gwendolyn J. Stout	0.73
13	3	30.1	Wetzel	Green	Thomas Dwight	2.13
14	3	N/A	Wetzel	Green	N/A	1.36
15	2	33.2	Wetzel	Green	Charles W. Martin	4.02
16	2	21	Wetzel	Green	Delbert L. Lesure	98.27
17	14	8	Wetzel	Magnolia	Delbert L. Lesure	28.17
18	14	7	Wetzel	Magnolia	C.M. & Lucy Maury	36.03
19	2	33	Wetzel	Green	Douglas J. Steele	146.31
20	9	36.2	Wetzel	Magnolia	Ronald A. Dewitt	43.36
21	9	36	Wetzel	Magnolia	Delmas F. Neff	2.99
22	14	11	Wetzel	Magnolia	W. D. Lemon	23.19
23	3	7	Wetzel	Green	Charles W. Martin	10.62
24	3	6	Wetzel	Green	Charles W. Martin	0.32
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29	14	3	Wetzel	Magnolia	W. D. Lemon	20.20
30	9	42.1	Wetzel	Magnolia	W. D. Lemon	29.74
31	14	2	Wetzel	Magnolia	Robert B. Litman	62.22
32	3	3	Wetzel	Green	Charles W. Martin	20.2
33	9	43	Wetzel	Magnolia	Doretta R. Rusli	4.04
34	9	43.1	Wetzel	Magnolia	Keith R. Pyles	7.12
35	9	29.3	Wetzel	Magnolia	Delmas F. & Linda J. Neff	18.12
36	9	42.1	Wetzel	Magnolia	Delmas F. & Linda J. Neff	0.67
37	9	42.3	Wetzel	Magnolia	Delmas F. & Linda J. Neff	2.26
38	14	4	Wetzel	Magnolia	W. D. Lemon	14.86
39	14	2.2	Wetzel	Magnolia	Tacy Living Trust	100.19

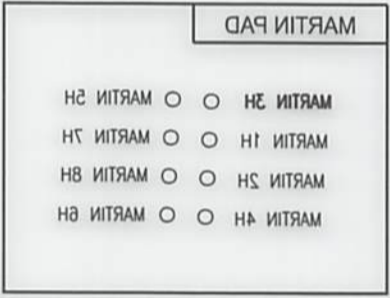
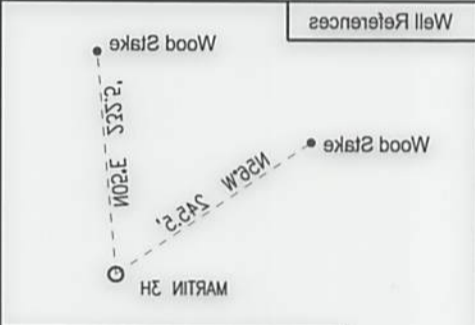


**Notes:**  
 MARTIN 3H As-Built coordinates are  
 NAD 27 N: 407,779.003 E: 1,643,273.000  
 NAD 27 Lat: 39.612688 Long: -80.766243  
 NAD 83 UTM N: 4,384,802.679 E: 250,081.144

MARTIN 3H As-Built Landing Point coordinates are  
 NAD 27 N: 408,102.913 E: 1,642,139.940  
 NAD 27 Lat: 39.613241 Long: -80.770281  
 NAD 83 UTM N: 4,384,899.602 E: 219,734.289

MARTIN 3H As-Built Bottom Hole coordinates are  
 NAD 27 N: 412,162.884 E: 1,639,237.440  
 NAD 27 Lat: 39.624277 Long: -80.779273  
 NAD 83 UTM N: 4,386,122.231 E: 218,920.826

West Virginia Coordinates system of 1927 (North Zone) based upon Differential GPS Measurements  
 Plat orientation, Corner and well ties are based upon the ghd north meridian  
 Well location references are based upon the ghd north meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.



**LEGEND**

- Active Well Location
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route



I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smith*  
 L. L. S. 687



DATE: JANUARY 18 20 18  
 OPERATORS WELL NO.: MARTIN 3H  
 API WELL NO.  
 STATE COUNTY PERMIT  
 47 - 103 - 02623

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

FILE NO.: W2174 (BK 59-37)  
 DRAWING NO.:  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY:  
 1:2500  
 PROVEN SOURCE OF ELEVATION:  
 2G-GPS (OPUS)

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 909' WATERSHED: LITTLE FISHING CREEK QUADRANGLE: PORTERS FALLS T.2.

DISTRICT: Green COUNTY: Wetzel

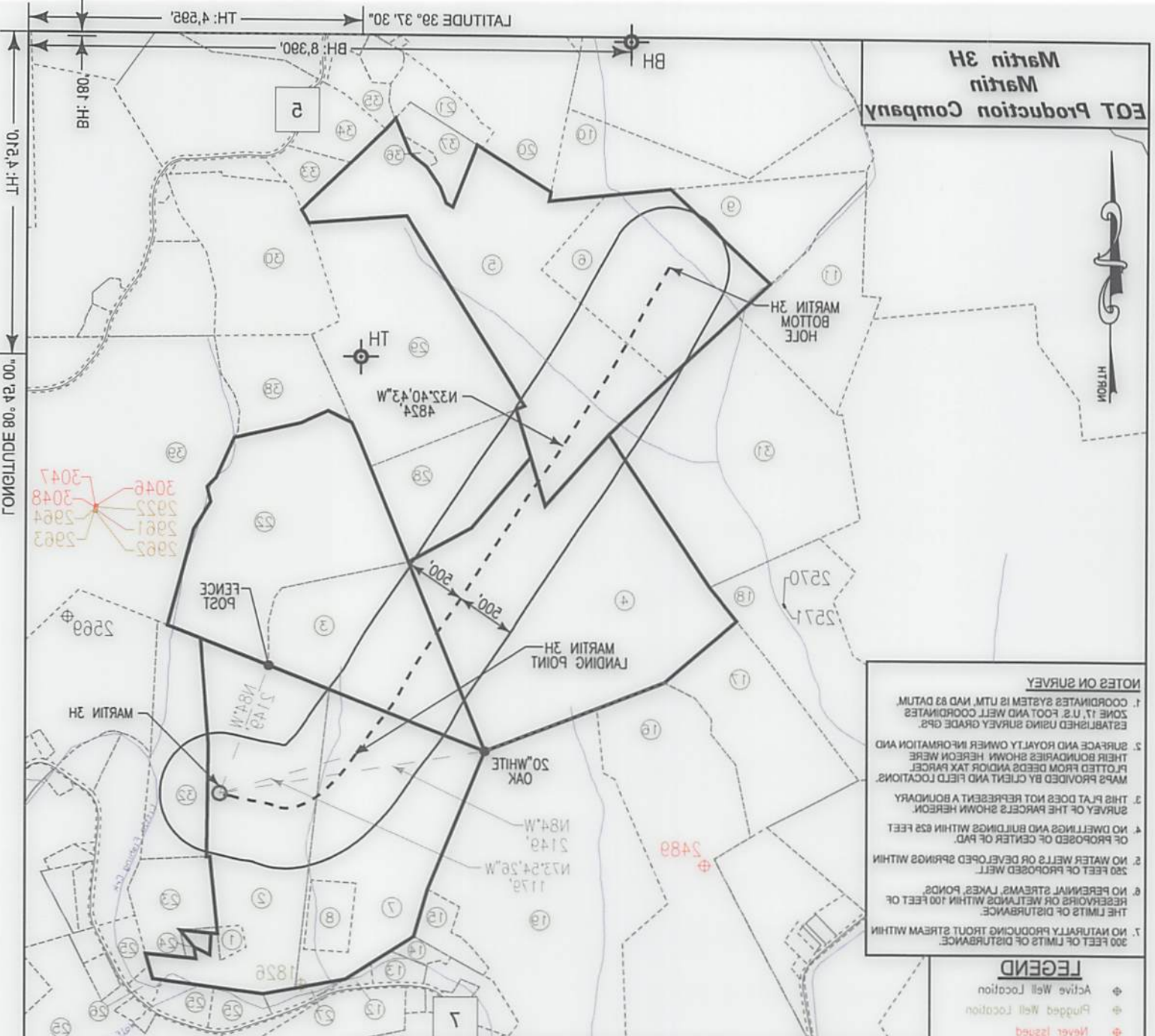
SURFACE OWNER: Charles & Gwendolyn Martin  
 ROYALTY OWNER: SNS Ventures, LLC et al  
 LEASE NO: 873397 ACREAGE: 102 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION

PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG  TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,600'

WELL OPERATOR: EQT Production Company  
 ADDRESS: 115 Professional Place PO Box 280 Bridgeport, WV 26330  
 DESIGNATED AGENT: Jason Ranson

EQT Production Company  
Martin  
Martin 3H



**NOTES ON SURVEY**

- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OR CENTER OF PAD.
- THIS PLAN DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS PLOTTED FROM DEEDS AND/OR TAX PARCEL THEIR BOUNDARIES SHOWN HEREON WERE SURFACE AND ROYALTY OWNER INFORMATION AND ESTABLISHED USING SURVEY GRADE GPS.
- COORDINATES SYSTEM IS LTM, NAD 83 DATUM. ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.

**LEGEND**

- ⊕ Active Well Location
- ⊖ Piped Well Location
- ⊕ Never Issued
- ⊖ Permit Issued
- ① Tract Identification
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- Lease Boundary
- Creek or Drain
- ⊕ WV County Route
- ⊖ WV State Route

Tract ID.	Acres	Owner
2&7	102	SNS Ventures, LLC et al
3	70.17	Anne L. Spencer et al
4	112.25	Anne L. Spencer et al
2 & 6	120.79	Delmas F. Neff et ux

I, the undersigned, hereby certify that this plat is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smith*  
L. L. S. 687



<p>DATE: JANUARY 18 20 18</p> <p>OPERATORS WELL NO: MARTIN 3H</p> <p>API WELL NO</p> <p>STATE COUNTY PERMIT</p>	<p>STATE OF WEST VIRGINIA</p> <p>DEPARTMENT OF ENVIRONMENTAL PROTECTION</p> <p>OIL AND GAS DIVISION</p>	<p>FILE NO: W2175 (BK 50-37)</p> <p>DRAWING NO:</p> <p>SCALE: 1" = 1200'</p> <p>MINIMUM DEGREE OF ACCURACY: 1:2500</p> <p>PROVEN SOURCE OF ELEVATION: 2G-GPS (OPUS)</p>
<p>ACREAGE: 54 ±</p> <p>ACREAGE: 102 ±</p> <p>LEASE NO: 873397</p> <p>DESIGNATED AGENT: Jason Ranson</p>	<p>WELL TYPE: <input type="checkbox"/> OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> WASTE DISPOSAL</p> <p>(IF GAS) PRODUCTION: <input type="checkbox"/> STORAGE <input type="checkbox"/> DEEP <input checked="" type="checkbox"/> SHALLOW</p> <p>LOCATION ELEVATION: 909'</p> <p>WATERSHED: LITTLE FISHING CREEK QUADRANGLE: PORTERS FALLS T.2.</p> <p>DISTRICT: Green</p> <p>SURFACE OWNER: Charles &amp; Gwendolyn Martin</p> <p>ROYALTY OWNER: SNS Ventures, LLC et al</p> <p>PROPOSED WORK: <input type="checkbox"/> DRILL <input type="checkbox"/> CONVERT <input type="checkbox"/> DRILL DEEPER <input checked="" type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION</p> <p><input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY)</p> <p><input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CLEAN OUT AND REPLUG <input type="checkbox"/> TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6'600'</p>	<p>ADDRESS: 115 Professional Place PO Box 280</p> <p>ADDRESS: 115 Professional Place PO Box 280</p> <p>WELL OPERATOR: EQT Production Company</p> <p>DESIGNATED AGENT: Jason Ranson</p>