

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

API 47-103-02954 County Wetzel District Proctor
Quad New Martinsville Pad Name Erlewine Field/Pool Name Mary
Farm name Erlewine, Richard Well Number #8H
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 4,392,644 Easting 517,395
Landing Point of Curve Northing 4,392,410 Easting 517,625
Bottom Hole Northing 4,391,069 Easting 518,100

Elevation (ft) 1,212 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 1/8/2014 Date drilling commenced 7/23/2014 Date drilling ceased 12/24/2014
Date completion activities began Not Yet Completed Date completion activities ceased Not Yet Completed
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 100 Open mine(s) (Y/N) depths N
Salt water depth(s) ft 1,671 Void(s) encountered (Y/N) depths N
Coal depth(s) ft 988 and 999 Cavern(s) encountered (Y/N) depths N

Is coal being mined in area (Y/N) N

APPROVED

NAME: Steve M. [Signature]
DATE: 5-25-17

Reviewed by: [Signature]

06/02/2017

RECEIVED
Office of Oil and Gas
MAR 13 2017
WV Department of
Environmental Protection

API 47-103 - 02954 Farm name Erlewine, Richard Well number #8H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	90'	New	LS - 941 ppf		N - GTS
Surface	17.5"	13.375"	1,220' KB - 1,210' GL	New	J55 - 54.5 ppf	118' & 198'	Y - CTS
Coal	17.5"	13.375"	1,220' KB - 1,210' GL	New	J55 - 54.5 ppf	118' & 198'	Y - CTS
Intermediate 1	12.25"	9.625"	2,398'	New	J55 - 36 ppf		Y - CTS
Intermediate 2							
Intermediate 3							
Production	8.75"	5.5"	11,711'	New	P110 - 20 ppf		N - TOC @ 1,426' Calculated
Tubing							
Packer type and depth set							

Comment Details Circulated 30 bbls cement to surface on 13.375" casing string. Circulated 20 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 1,426'.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ³ /sks)	Volume (ft ³)	Cement Top (MD)	WOC (hrs)
Conductor	Type 1	34	15.6	1.18	40	Surface	24.0
Surface	HalCem Class "A"	890	15.6	1.21	1,077	Surface	8.0
Coal	HalCem Class "A"	890	15.6	1.21	1,077	Surface	8.0
Intermediate 1	Lead-VariCem Tail-HalCem	Lead-430 Tail-355	Lead-15.6 Tail 15.6	Lead-1.24 Tail-1.21	Lead-533 Tail-430	Surface	12.0
Intermediate 2							
Intermediate 3							
Production	Lead-TunedSpacer3 Tail-VariCem	Lead-178 Tail-2,165	Lead-14.5 Tail-15.2	Lead-2.37 Tail 1.20	Lead-422 Tail-2,598	1,426' Calculated	7.0
Tubing							

Drillers TD (ft) 11,729 MD / 6,692 TVD Loggers TD (ft) N/A
 Deepest formation penetrated Marcellus Shale Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) 5,814 MD / 5,802 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, 16, 20, 24 and 28. Intermediate casing had bow spring centralizers placed on joints 4, 8, 12, 16, 20, 24, 28, 32 and 36.
Production casing had rigid spiral centralizers placed on every fourth joint beginning with joint 2 to joint 138. Ran a total of 35 rigid spiral centralizers. Ran bow spring centralizers from joint 141 to joint 246 on every third joint. A total of 36 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 (bbls)	Amount of Nitrogen/other (units)

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS
Not Yet Completed	TVD MD

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 _____ mcfpd Oil _____ bpd NGL _____ bpd Water _____ bpd GAS MEASURED BY Estimated Orifice Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Nomac (top-hole) & Saxon Drilling (horizontal)
 Address 2034 Martins Branch Rd /9303 New Trails Drive City Mount Morris / The Woodlands State PA / TX Zip 25312 / 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 Schlumberger
 Address 1178 US HWY 33 East City Weston State WV Zip 26452

Stimulating Company _____
 Address _____ City _____ State _____ Zip _____

Please insert additional pages as applicable.

Completed by Greg Zofchak Telephone 304-225-1600
 Signature [Signature] Title Drilling Engineer Date 2/16/17

Erlewine #8H
API 47-103-02954
Stone Energy Corporation

	Horizontal		Bottom (ft TVD)	Bottom (ft MD)	
	Top (ft TVD)	Top (ft MD)			
Sandstone & Shale	Surface	*	988		FW @ 100'
Coal	988	*	990		
Sandstone & Shale	990	*	999		
Coal	999	*	1,002		
Sandstone & Shale	1,002	*	2,022		SW @ 1,671'
Little Lime	2,022	*	2,052		
Big Lime	2,052	*	2,152		
Big Injun	2,152	*	2,252		
Sandstone & Shale	2,252	*	2,620		
Berea Sandstone	2,620	*	2,650		
Shale	2,650	*	2,865		
Gordon	2,865	*	2,915		
Undiff Devonian Shale	2,915	*	5,785	5,797	
Rhinestreet	5,785	5,797 ~	6,103	6,141	
Cashaqua	6,103	6,141 ~	6,351	6,455	
Middlesex	6,351	6,455 ~	6,380	6,501	
West River	6,380	6,501 ~	6,437	6,605	
Geneseo	6,437	6,605 ~	6,452	6,634	
Tully Limestone	6,452	6,634 ~	6,495	6,725	
Hamilton Shale	6,495	6,725 ~	6,542	6,858	
Marcellus	6,542	6,858 ~	6,692	11,729	
TD			6,692	11,729	

* From Pilot Hole Log and Driller's Log

~ From MWD Gamma Log