

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

API 47-103-02864 County Wetzel District Magnolia
Quad New Martinsville Pad Name Stone Field/Pool Name Mary
Farm name Stone Energy Corporation Well Number #5H
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 4,389,059 Easting 518,700
Landing Point of Curve Northing 4,389,424 Easting 518,649
Bottom Hole Northing 4,390,889 Easting 518,065

Elevation (ft) 1,215 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 3/20/2013 Date drilling commenced 6/11/2013 Date drilling ceased 1/15/2014
Date completion activities began 4/7/2014 Date completion activities ceased 10/28/2014
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 168 Open mine(s) (Y/N) depths _____
Salt water depth(s) ft 1,989 Void(s) encountered (Y/N) depths _____
Coal depth(s) ft None Reported Cavern(s) encountered (Y/N) depths _____
Is coal being mined in area (Y/N) N

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N
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Reviewed by:
46/5/2015
W.S. 6/2/15

API 47-103 - 02864

Farm name Stone Energy Corporation

Well number #5H

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"	80'	New	LS		N - GTS
Surface	17.5"	13.375"	1,228' KB - 1,214' GL	New	J55	124' & 208'	Y - CTS
Coal	17.5"	13.375"	1,228' KB - 1,214' GL	New	J55	124' & 208'	Y - CTS
Intermediate 1	12.25"	9.625"	2,450'	New	J55		Y - CTS
Intermediate 2							
Intermediate 3							
Production	8.75"	5.5"	12,431'	New	P110		N - TOC @ 190'
Tubing	N/A	2.375"	7,039'	New	N80		N/A
Packer type and depth set							

Comment Details Circulated 40 bbls cement to surface on 13.375" casing string. Circulated 32 bbls cement to surface on the 9.625" casing string.
TOC on 5.5" after running CBL @ 190'.

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	Class "A"	940	15.6	1.19	1,119	Surface	8.0
Coal	Class "A"	940	15.6	1.19	1,119	Surface	8.0
Intermediate 1	Lead-FlexSeal Tail-Class "A"	Lead-501 Tail-250	Lead-15.0 Tail-15.6	Lead-1.26 Tail-1.19	Lead-631 Tail-298	Surface	12.0
Intermediate 2							
Intermediate 3							
Production	Lead-FlexSeal Tail-Class "A"	Lead-876 Tail-1,677	Lead- 15.0 Tail-15.6	Lead-1.26 Tail-1.19	Lead-1,104 Tail-1,996	190	7.0
Tubing							

Drillers TD (ft) 12,456 MD / 6,720 TVD

Loggers TD (ft) N/A

Deepest formation penetrated Marcellus Shale

Plug back to (ft) _____

Plug back procedure _____

Kick off depth (ft) 6,000 MD / 5,975' 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 2, 5, 8, 11, 14, 17, 20, 23, 26 and 28. Intermediate casing had bow spring centralizers placed on joints 2, 5, 8, 11, 14, 18, 22, 26, 30, 34, 38, 43, 48 and 53.
Production casing had rigid spiral centralizers placed on every fourth joint beginning with joint 1 to joint #148. Ran a total of 38 rigid spiral centralizers. Ran bow spring centralizers from joint 152 to joint 276 on every eighth joint. A total of 25 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 - 02864 Farm name Stone Energy Corporation Well number #5H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	4/17/14	12,148	12,331	72	Marcellus Shale
2	5/17/14	11,889	12,072	72	Marcellus Shale
3	5/23/14	11,630	11,811	72	Marcellus Shale
4	5/28/14	11,365	11,546	72	Marcellus Shale
5	5/30/14	11,108	11,298	72	Marcellus Shale
6	5/31/14	10,854	11,043	72	Marcellus Shale
7	6/1/14	10,607	10,793	72	Marcellus Shale
8	6/2/14	10,353	10,538	72	Marcellus Shale
9	6/3/14	10,098	10,283	72	Marcellus Shale
10	6/4/14	9,844	10,025	72	Marcellus Shale
11	6/5/14	9,587	9,770	72	Marcellus Shale
12	6/6/14	9,333	9,515	72	Marcellus Shale
13	6/6/14	9,076	9,263	72	Marcellus Shale
14	6/7/14	8,830	9,008	72	Marcellus Shale
15	6/7/14	8,572	8,764	72	Marcellus Shale
16	7/8/14	8,322	8,508	72	Marcellus Shale

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	5/17/14	84.4	7,994	8,695	4,861	358,260	8,563	
2	5/23/14	82.3	8,106	7,013	4,889	374,460	7,951	
3	5/27/14	85.3	7,712	7,118	5,204	420,340	8,391	
4	5/29/14	81.9	8,170	7,139	5,750	416,780	8,308	
5	5/30/14	85.1	7,748	7,227	5,655	426,420	8,438	
6	5/31/14	85.3	7,622	7,280	4,463	430,671	8,397	
7	6/1/14	84.0	7,984	7,827	5,950	425,300	10,311	
8	6/2/14	80.4	7,379	6,676	5,810	415,060	8,289	
9	6/3/14	80.8	7,525	7,227	5,233	413,780	10,529	
10	6/4/14	84.7	7,675	7,382	4,861	415,000	8,383	
11	6/6/14	82.4	7,527	7,228	5,837	425,760	8,343	
12	6/6/14	83.6	7,594	7,310	5,205	413,502	8,322	
13	6/7/14	85.2	7,520	6,850	5,350	417,680	8,316	
14	6/7/14	84.8	7,380	6,853	5,033	422,160	8,274	
15	7/7/14	84.0	7,532	6,716	4,516	420,460	10,022	
16	7/29/14	78.8	7,257	7,264	4,860	389,560	8,535	

Please insert additional pages as applicable.

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PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
17	7/29/14	8,072	8,253	72	Marcellus Shale
18	8/1/14	7,809	8,000	72	Marcellus Shale
19	8/2/14	7,553	7,735	72	Marcellus Shale
20	8/3/14	7,351	7,483	72	Marcellus Shale
21	8/4/14	7,158	7,283	72	Marcellus Shale

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)
17	8/1/14	81.7	7,575	7,964	4,758	415,620	8,591	
18	8/2/14	75.1	7,815	9,137	5,749	397,113	8,703	
19	8/3/14	80.1	6,936	6,777	4,860	421,420	8,797	
20	8/4/14	80.8	6,840	7,389	4,545	379,460	8,002	
21	8/7/14	79.8	6,889	7,999	4,286	370,700	7,911	

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PRODUCING FORMATION(S)	DEPTHS	
<u>Marcellus Shale</u>	<u>6,799' to 6,726'</u> TVD	<u>7,158' to 12,331'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2,497 psi Bottom Hole 4,263 calculated psi DURATION OF TEST 72 hrs

OPEN FLOW Gas Oil NGL Water GAS MEASURED BY

1,698 mcfpd _____ bpd 125.3 bpd 504.0 bpd Estimated Orifice Pilot

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

Please insert additional pages as applicable.

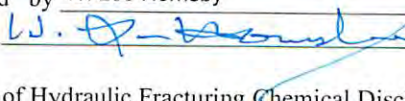
Drilling Contractor Nomac (top-hole) & Saxon Drilling (horizontal)
Address 2034 Martins Branch Rd /9303 New Trails Drive City Mount Morris / The Woodlands State PA / TX Zip 25312 / 77381

Logging Company Scientific Drilling and Schlumberger
Address 3475 Washington Ave / 1178 US HWY 33 East City Finleyville / Weston State PA / WV Zip 15332 / 26452

Cementing Company Schlumberger
Address 1178 US HWY 33 East City Weston State WV Zip 26452

Stimulating Company Schlumberger
Address 1178 US HWY 33 East City Weston State WV Zip 26452

Please insert additional pages as applicable.

Completed by W. Lee Hornsby Telephone 304-225-1600
Signature  Title Drilling Engineer Date 4/27/2015

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

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Stone #5H
API 47-103-02864
Stone Energy Corporation

	Horizontal		Bottom (ft TVD)	Bottom (ft MD)	
	Top (ft TVD)	Top (ft MD)			
Sandstone & Shale	Surface	*	2,086		FW @ 168
Little Lime	2,086	*	2,116		SW @ 1,989
Big Lime	2,116	*	2,216		
Big Injun	2,216	*	2,316		
Sandstone & Shale	2,316	*	2,689		
Berea Sandstone	2,689	*	2,719		
Shale	2,719	*	2,894		
Gordon	2,894	*	2,944		
Undiff Devonian Shale	2,944	*	5,974	5,999	
Rhinestreet	5,974	5,999 ~	6,452	6,518	
Cashaqua	6,452	6,518 ~	6,608	6,706	
Middlesex	6,608	6,706 ~	6,627	6,750	
West River	6,627	6,750 ~	6,680	6,840	
Geneseo	6,680	6,840 ~	6,697	6,866	
Tully Limestone	6,697	6,866 ~	6,734	6,947	
Hamilton Shale	6,734	6,947 ~	6,783	7,095	
Marcellus	6,783	7,095 ~	6,720	12,456	
TD			6,720	12,456	

* From Pilot Hole Log and Driller's Log

~ From MWD Gamma Log

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Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date:	8/7/2014
State:	West Virginia
County/Parish:	Wetzel County
API Number:	47-103-02864
Operator Name:	Stone Energy
Well Name and Number:	Stone 5H
Longitude:	518,700
Latitude:	4,389,059
Long/Lat Projection:	
Production Type:	
True Vertical Depth (TVD):	0
Total Water Volume (gal)*:	7617835

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
H015, Slickwater, WF115	Schlumberger	Corrosion Inhibitor, Bactericide (Myacide GA25), Scale Inhibitor, Surfactant , Acid, Breaker, Gelling Agent, Friction Reducer, Iron Control Agent, Clay Control Agent, Fluid Loss Additive , Propping	Water (Including Mix Water Supplied by Client)*	NA		87.97356%	
			Crystalline silica	14808-60-7	98.41299%	11.83558%	
			Hydrochloric acid	7647-01-0	0.85853%	0.10325%	
			Carbohydrate polymer	Proprietary	0.71483%	0.08597%	
			Ammonium sulfate	7783-20-2	0.17649%	0.02123%	
			Polyethylene glycol monohexyl ether	31726-34-8	0.07184%	0.00864%	
			Glutaraldehyde	111-30-8	0.05672%	0.00682%	
			Urea	57-13-6	0.02942%	0.00354%	
			Diammonium peroxodisulfate	7727-54-0	0.02863%	0.00344%	
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00553%	0.00066%	
			Trisodium ortho phosphate	7601-54-9	0.00466%	0.00056%	
			Ethane-1,2-diol	107-21-1	0.00466%	0.00056%	
			Methanol	67-56-1	0.00350%	0.00042%	
			Sodium erythorbate	6381-77-7	0.00319%	0.00038%	
			Aliphatic acids	Proprietary	0.00262%	0.00032%	
			Aliphatic alcohols, ethoxylated #2	Proprietary	0.00262%	0.00032%	
			Calcium chloride	10043-52-4	0.00128%	0.00015%	
			Prop-2-yn-1-ol	107-19-7	0.00087%	0.00011%	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

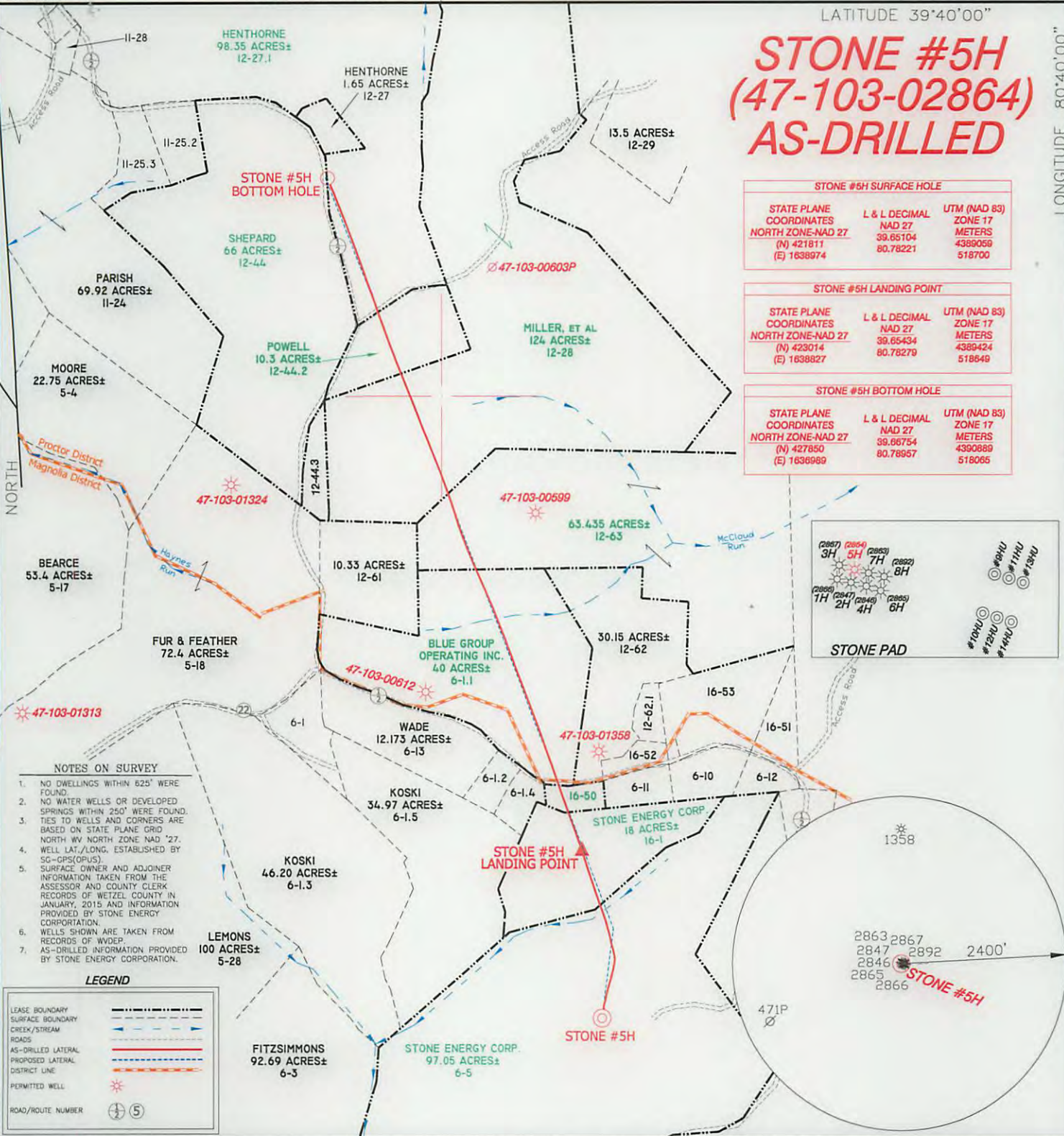
Report ID: RPT-29867 (Generated on 8/25/2014 1:10 PM)

All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix B.

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STONE #5H (47-103-02864) AS-DRILLED

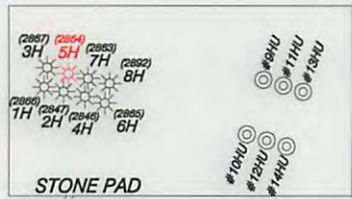
LONGITUDE 80°40'00"
5,660'
LAT. 39°39'03.7"



STONE #5H SURFACE HOLE		
STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 421811 (E) 1638974	L & L DECIMAL NAD 27 39.65104 80.78221	UTM (NAD 83) ZONE 17 METERS 4389059 518700

STONE #5H LANDING POINT		
STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 423014 (E) 1638827	L & L DECIMAL NAD 27 39.65434 80.78279	UTM (NAD 83) ZONE 17 METERS 4389424 518649

STONE #5H BOTTOM HOLE		
STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 427850 (E) 1636989	L & L DECIMAL NAD 27 39.66754 80.78957	UTM (NAD 83) ZONE 17 METERS 4390889 518065



- NOTES ON SURVEY**
- NO DWELLINGS WITHIN 625' WERE FOUND.
 - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
 - TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WY NORTH ZONE NAD '27.
 - WELL LAT./LONG. ESTABLISHED BY SG-GPS(OPUS).
 - SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF WETZEL COUNTY IN JANUARY, 2015 AND INFORMATION PROVIDED BY STONE ENERGY CORPORATION.
 - WELLS SHOWN ARE TAKEN FROM RECORDS OF WDEP.
 - AS-DRILLED INFORMATION PROVIDED BY STONE ENERGY CORPORATION.

LEGEND

LEASE BOUNDARY	---
SURFACE BOUNDARY	---
CREEK/STREAM	---
ROADS	---
AS-DRILLED LATERAL	---
PROPOSED LATERAL	---
DISTRICT LINE	---
PERMITTED WELL	☀
ROAD/ROUTE NUMBER	⑤

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 RULES ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

P.S. 834

 HUPP Surveying & Mapping
 P.O. Box 647 Grantsville, WV 26147
 (304) 354-7035 EMAIL: hupp@frontiernet.net



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE APRIL 6, 2015
 OPERATORS WELL NO. 47-103-02864
 API WELL NO. 47-103-02864
 STATE WV COUNTY PERMIT
 RECEIVED Office of Oil and Gas
 APR 28 2015

MINIMUM DEGREE OF ACCURACY 1/2500
 FILE NO. W2234 (BK 75-28)
 PROVEN SOURCE OF ELEVATION SG-GPS (OPUS)
 SCALE 1" = 1000'

STATE OF WEST VIRGINIA
 Department of Environmental Protection
 DIVISION OF ENVIRONMENTAL PROTECTION
 OFFICE OF OIL AND GAS

WELL TYPE : OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION ___ STORAGE ___ DEEP ___ SHALLOW ___

LOCATION : ELEVATION 1,215' WATERSHED DOOLIN RUN
 DISTRICT MAGNOLIA COUNTY WETZEL QUADRANGLE NEW MARTINSVILLE 7.5'

SURFACE OWNER STONE ENERGY CORPORATION ACREAGE 97.05±
 ROYALTY OWNER BARBARA BARRETT, et al LEASE ACREAGE 518.93±

PROPOSED WORK : LEASE NO. _____
 DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___ PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ OTHER ___
 PHYSICAL CHANGE IN WELL (SPECIFY) _____ TARGET FORMATION MARCELLUS
 ESTIMATED DEPTH TVD-6,818' MD- 12,456'

WELL OPERATOR STONE ENERGY CORPORATION DESIGNATED AGENT TIM MCGREGOR
 ADDRESS P.O. BOX 52807 LAFAYETTE, LA 70508 ADDRESS 1300 FORT PIERPONT DR., SUITE 201 MORGANTOWN, WV 26508

COUNTY NAME PERMIT

06/05/2015