

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

API 47-103-02867 County Wetzel District Magnolia
Quad New Martinsville Pad Name Stone Field/Pool Name Mary
Farm name Stone Energy Corporation 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 4,389,060 Easting 518,694
Landing Point of Curve Northing 4,388,581 Easting 518,649
Bottom Hole Northing 4,389,807 Easting 517,840

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 5/27/2013 Date drilling ceased 6/24/2014
Date completion activities began 4/7/2014 Date completion activities ceased 11/3/2014
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 95 Open mine(s) (Y/N) depths N
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N
Coal depth(s) ft 909 and 1,100 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

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Reviewed by:
WV Department of Environmental Protection
W.S. 6/02/15

API 47-103 - 02867 Farm name Stone Energy Corporation Well number #3H

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"	80'	New	LS		N - GTS
Surface	17.5"	13.375"	1,207' KB - 1,192' GL	New	J55	109' & 191'	Y - CTS
Coal	17.5"	13.375"	1,207' KB - 1,192' GL	New	J55	109' & 191'	Y - CTS
Intermediate 1	12.25"	9.625"	2,447'	New	J55		Y - CTS
Intermediate 2							
Intermediate 3							
Production	8.75"	5.5"	12,649'	New	P110		N - TOC @ 205'
Tubing	N/A	2.375"	7,485'	New	N80		N/A
Packer type and depth set							

Comment Details Circulated 28 bbls cement to surface on 13.375" casing string. Circulated 30 bbls cement to surface on the 9.625" casing string. TOC on the 5.5" casing is 205'

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"	890	15.6	1.19	1,059	Surface	8.0
Coal	Class "A"	890	15.6	1.19	1,059	Surface	8.0
Intermediate 1	Lead-FlexSeal Tail-Class "A"	Lead-492 Tail-309	Lead-15.0 Tail-15.6	Lead-1.26 Tail-1.19	Lead-620 Tail-368	Surface	12.0
Intermediate 2							
Intermediate 3							
Production	Lead-FlexSeal Tail-Class "A"	Lead-829 Tail-1,771	Lead- 15.0 Tail-15.6	Lead-1.26 Tail-1.19	Lead-1,045 Tail-2,107	205	7.0
Tubing							

Drillers TD (ft) 12,666 MD / 6,683 TVD Loggers TD (ft) N/A
 Deepest formation penetrated Marcellus Shale Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) 6,139 MD / 6,111' 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, #8, #10, #14, #18, #22, #26 and #30. Intermediate casing had bow spring centralizers placed on joints #2, #6, #10, #14, #18, #22, #26, #30, #34, #38, #42, #46, #50, #54 and #58.
 Production casing had rigid spiral centralizers placed on every fourth joint beginning with joint #1 to joint #136. Ran a total of 35 rigid spiral centralizers. Ran bow spring centralizers from joint #144 to joint #269 on every fourth joint. A total of 31 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)
1	4/18/14	12,382	12,560	72	Marcellus Shale
2	7/8/14	12,127	12,313	72	Marcellus Shale
3	7/9/14	11,873	12,058	72	Marcellus Shale
4	7/11/14	11,626	11,798	72	Marcellus Shale
5	7/24/14	11,381	11,558	72	Marcellus Shale
6	7/25/14	11,126	11,304	72	Marcellus Shale
7	7/25/14	10,885	11,058	72	Marcellus Shale
8	7/26/14	10,640	10,813	72	Marcellus Shale
9	7/26/14	10,375	10,563	72	Marcellus Shale
10	7/26/14	10,120	10,305	72	Marcellus Shale
11	7/27/14	9,877	10,053	72	Marcellus Shale
12	7/27/14	9,628	9,805	72	Marcellus Shale
13	7/28/14	9,385	9,558	72	Marcellus Shale
14	7/28/14	9,134	9,310	72	Marcellus Shale
15	7/29/14	8,884	9,060	72	Marcellus Shale
16	7/30/14	8,633	8,810	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	7/8/14	79.9	7,873	7,079	4,230	359,760	9,932	
2	7/9/14	81.3	8,070	7,804	4,344	424,080	9,192	
3	7/10/14	68.3	8,397	7,879	5,438	424,540	12,045	
4	7/12/14	62.0	8,879	6,743	6,642	49,980	4,421	
5	7/25/14	79.5	7,768	6,808	5,061	420,790	9,066	
6	7/25/14	82.7	7,680	6,882	7,476	425,780	9,412	
7	7/26/14	83.5	7,530	6,970	4,831	425,400	9,224	
8	7/26/14	77.4	7,339	5,631	4,487	417,940	9,375	
9	7/26/14	78.7	7,525	6,439	4,889	418,440	9,287	
10	7/27/14	79.0	7,436	6,299	5,005	418,180	9,122	
11	7/27/14	78.6	7,445	7,655	4,575	422,760	9,170	
12	7/28/14	78.4	7,650	7,674	5,492	415,140	9,049	
13	7/28/14	80.7	7,467	7,377	4,632	417,740	9,066	
14	7/28/14	55.1	8,865	8,020	7,115	3,500	5,233	
15	7/30/14	80.6	7,270	5,767	4,230	417,880	9,270	
16	7/31/14	81.2	7,027	6,772	4,344	423,840	9,159	

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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	7/31/14	8,381	8,563	72	Marcellus Shale
18	8/1/14	8,126	8,313	72	Marcellus Shale
19	8/2/14	7,875	8,058	72	Marcellus Shale
20	8/3/14	7,628	7,805	72	Marcellus Shale
21	8/4/14	7,378	7,553	72	Marcellus Shale
22	8/6/14	7,165	7,307	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	80.7	7,230	7,465	5,320	419,660	9,164	
18	8/2/14	81.9	7,211	7,068	4,718	418,200	9,059	
19	8/3/14	81.3	7,029	7,098	5,150	420,140	9,161	
20	8/4/14	81.7	6,858	6,622	4,962	423,780	9,076	
21	8/5/14	57.7	8,964	9,053	6,096	3,000	4,882	
22	8/7/14	78.5	6,823	6,867	4,515	378,380	7,767	

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PRODUCING FORMATION(S)	DEPTHS	
<u>Marcellus Shale</u>	<u>6,798' to 6,694'</u> TVD	<u>7,165' to 12,560'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2,476 psi Bottom Hole 4,242 calculated psi DURATION OF TEST 90.2 hrs

OPEN FLOW Gas 1,900 mcfpd Oil _____ bpd NGL 139.2 bpd Water 355.2 bpd GAS MEASURED BY Estimated Orifice Pilot

LITHOLOGY/ FORMATION	TOP	BOTTOM	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 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

06/05/2015

Stone #3H
API 47-103-02867
Stone Energy Corporation

	Horizontal		Bottom (ft TVD)	Bottom (ft MD)
	Top (ft TVD)	Top (ft MD)		
Sandstone & Shale	Surface	*	909	FW @ 95
Coal	909	*	912	
Sandstone & Shale	842	*	1,100	
Coal	1,100	*	1,104	
Sandstone & Shale	1,104	*	2,086	No SW Reported
Little Lime	2,086	*	2,116	
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	*	5,874	5,899
Rhinestreet	5,874	5,899 ~	6,449	6,496
Cashaqua	6,449	6,496 ~	6,602	6,690
Middlesex	6,602	6,690 ~	6,622	6,716
West River	6,622	6,716 ~	6,673	6,808
Geneseo	6,673	6,808 ~	6,689	6,839
Tully Limestone	6,689	6,839 ~	6,725	6,916
Hamilton Shale	6,725	6,916 ~	6,778	7,064
Marcellus	6,778	7,064 ~	6,683	12,666
TD			6,683	12,666

* 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:	47-103-02867
Operator Name:	Stone Energy
Well Name and Number:	Stone 3H
Longitude:	518,694
Latitude:	4,389,060
Long/Lat Projection:	
Production Type:	
True Vertical Depth (TVD):	0
Total Water Volume (gal)*:	8029200

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, Buffer, Fluid Loss Additive	Water (Including Mix Water Supplied by Client)*	NA		89.07730%	
			Crystalline silica	14808-60-7	98.18198%	10.72412%	
			Hydrochloric acid	7647-01-0	1.04249%	0.11387%	
			Carbohydrate polymer	Proprietary	0.75724%	0.08271%	
			Ammonium sulfate	7783-20-2	0.19941%	0.02178%	
			Polyethylene glycol monohexyl ether	31726-34-8	0.07184%	0.00785%	
			Glutaraldehyde	111-30-8	0.05752%	0.00628%	
			Urea	57-13-6	0.03323%	0.00363%	
			Diammonium peroxodisulfate	7727-54-0	0.03151%	0.00344%	
			Sodium carbonate	497-19-8	0.00730%	0.00080%	
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00553%	0.00060%	
			Trisodium ortho phosphate	7601-54-9	0.00420%	0.00046%	
			Ethane-1,2-diol	107-21-1	0.00420%	0.00046%	
			Methanol	67-56-1	0.00408%	0.00045%	
			Sodium erythorbate	6381-77-7	0.00333%	0.00036%	
			Aliphatic acids	Proprietary	0.00306%	0.00033%	
			Aliphatic alcohols, ethoxylated #2	Proprietary	0.00306%	0.00033%	
			Calcium chloride	10043-52-4	0.00128%	0.00014%	
			Prop-2-yn-1-ol	107-19-7	0.00102%	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-29863 (Generated on 8/25/2014 1:08 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 D.

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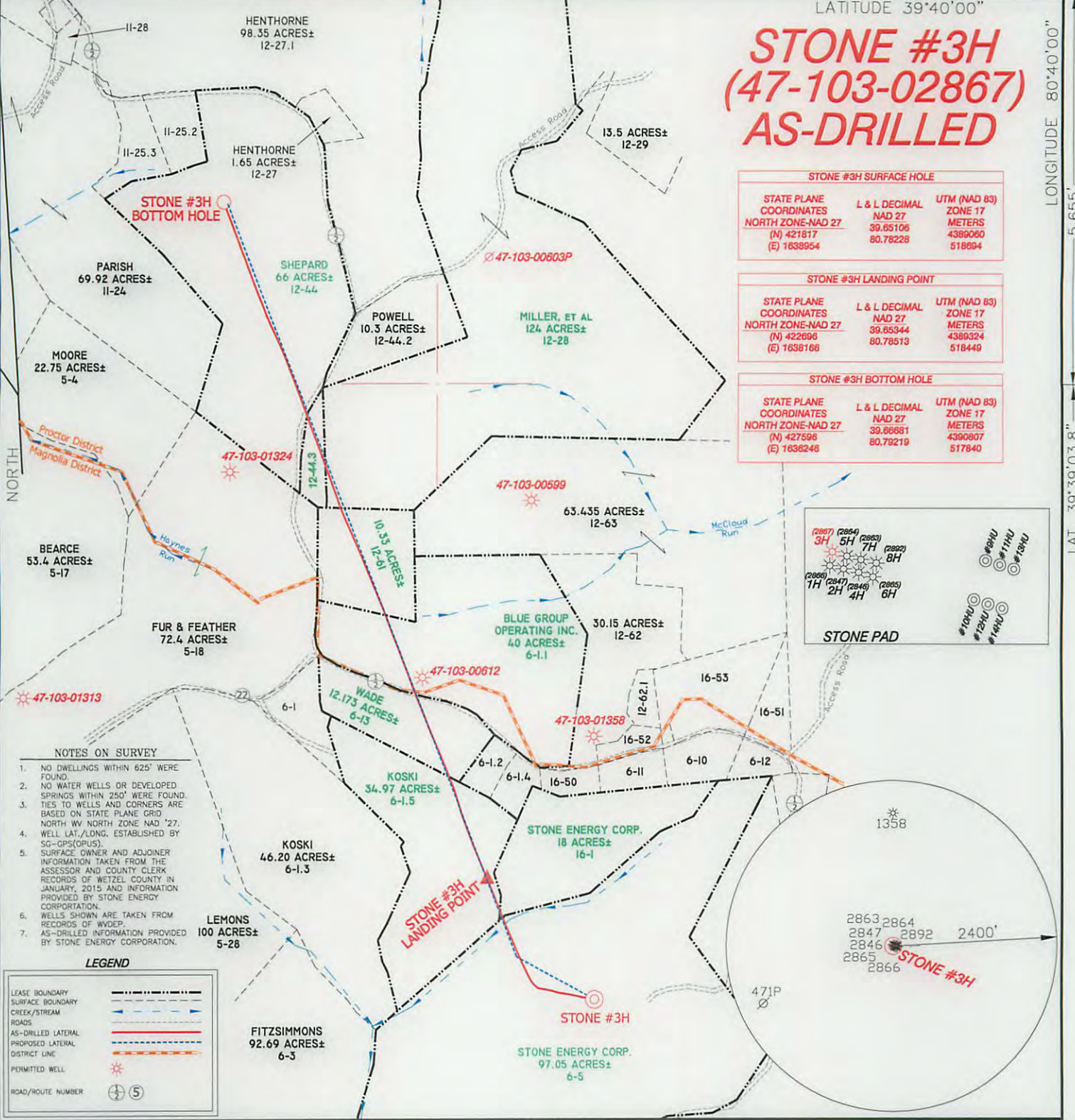
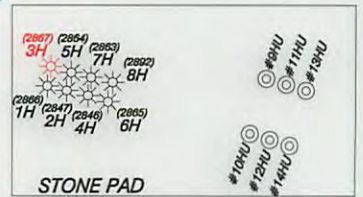
06/05/2015

STONE #3H (47-103-02867) AS-DRILLED

STONE #3H SURFACE HOLE		
STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 421817 (E) 1638954	L & L DECIMAL NAD 27 39.65106 80.78228	UTM (NAD 83) ZONE 17 METERS 4380060 518894

STONE #3H LANDING POINT		
STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 422696 (E) 1638166	L & L DECIMAL NAD 27 39.65344 80.78513	UTM (NAD 83) ZONE 17 METERS 4386324 518449

STONE #3H BOTTOM HOLE		
STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 427596 (E) 1638246	L & L DECIMAL NAD 27 39.66681 80.79219	UTM (NAD 83) ZONE 17 METERS 4390807 517840



- NOTES ON SURVEY**
1. NO DWELLINGS WITHIN 625' WERE FOUND.
 2. NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND.
 3. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27.
 4. WELL LAT./LONG. ESTABLISHED BY SG-GPS(OPUS).
 5. 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.
 6. WELLS SHOWN ARE TAKEN FROM RECORDS OF INOPER.
 7. 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, 20 15
 OPERATORS WELL NO. STONE #3H
 API WELL NO. 47-103-02867
 STATE COUNTY PERMIT

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
 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 470.92± **06/05/2015**
 PROPOSED WORK :
 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-6,810' MD- 12,666'

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