

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

API 47-103-02847 County Wetzel District Magnolia
Quad New Martinsville Pad Name Stone Field/Pool Name Mary
Farm name Stone Energy Corporation Well Number #2H
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 4,389,053 Easting 518,697
Landing Point of Curve Northing 4,388,598 Easting 518,641
Bottom Hole Northing 4,387,332 Easting 519,317

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 2/5/2013 Date drilling commenced 5/3/2013 Date drilling ceased 2/25/2014
Date completion activities began 4/7/2014 Date completion activities ceased 11/4/2014
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

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Freshwater depth(s) ft 95 Open mine(s) (Y/N) depths APR 28 2015
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N
Coal depth(s) ft 837 Cavern(s) encountered (Y/N) depths N
Is coal being mined in area (Y/N) N

WV Department of
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Reviewed by:
AL S/6/15
06/05/2015
W.S. 06/02/15

API 47-103 - 02847 Farm name Stone Energy Corporation Well number #2H

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"	1,209' KB - 1.195' GL	New	J55	117' & 200'	Y - CTS
Coal	17.5"	13.375"	1,209' KB - 1.195' GL	New	J55	117' & 220'	Y - CTS
Intermediate 1	12.25"	9.625"	2,482'	New	J55		Y - CTS
Intermediate 2							
Intermediate 3							
Production	8.75"	5.5"	12,460'	New	P110		N - TOC @ 1,860'
Tubing	N/A	2.375"	7,485'	New	N80		N/A
Packer type and depth set							

Comment Details Circulated 40 bbls cement to surface on 13.375" casing string. Circulated 45 bbls cement to surface on the 9.625" casing string. TOC on the 5.5" casing is 1,860'

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"	932	15.6	1.19	1,109	Surface	8.0
Coal	Class "A"	932	15.6	1.19	1,109	Surface	8.0
Intermediate 1	Lead-FlexSeal Tail-Class "A"	Lead-510 Tail-370	Lead-15.0 Tail 15.6	Lead-1.26 Tail-1.19	Lead-643 Tail-302	Surface	12.0
Intermediate 2							
Intermediate 3							
Production	Lead-FlexSeal Tail-Class "A"	Lead-742 Tail-1,823	Lead- 15.0 Tail-15.6	Lead-1.26 Tail-1.19	Lead-935 Tail-2,169	~1,860	7.0
Tubing							

Drillers TD (ft) 12,460 MD / 6,772TVD Loggers TD (ft) N/A
 Deepest formation penetrated Marcellus Shale Plug back to (ft) _____
 Plug back procedure _____

Kick off depth (ft) 5,763 MD / 5,753' 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 #29. Intermediate casing had bow spring centralizers placed on joints #2, #5, #8, #11, #14, #17, #20, #23, #26, #29, #32, #35, #38, #41, #44, #47, #50, #53, #56 and #59. Production casing had rigid spiral centralizers placed on every fourth joint beginning with joint #1 to joint #220. Ran a total of 56 rigid spiral centralizers. Ran bow spring centralizers from joint #228 to joint #284 on every eighth joint. A total of 8 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 - 02847

Farm name Stone Energy Corporation

Well number #2H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
1	4/14/14	12,205	12,379	72	Marcellus Shale
2	7/9/14	11,955	12,138	72	Marcellus Shale
3	7/10/14	11,701	11,888	72	Marcellus Shale
4	7/11/14	11,447	11,630	72	Marcellus Shale
5	7/12/14	11,190	11,369	72	Marcellus Shale
6	7/13/14	10,940	11,123	72	Marcellus Shale
7	7/14/14	10,698	10,869	72	Marcellus Shale
8	7/15/14	10,445	10,628	72	Marcellus Shale
9	7/16/14	10,190	10,374	72	Marcellus Shale
10	7/17/14	9,939	10,123	72	Marcellus Shale
11	7/18/14	9,689	9,870	72	Marcellus Shale
12	7/19/14	9,440	9,623	72	Marcellus Shale
13	7/20/14	9,186	9,367	72	Marcellus Shale
14	7/21/14	8,943	9,122	72	Marcellus Shale
15	7/22/14	8,690	8,873	72	Marcellus Shale
16	7/27/14	8,440	8,623	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	7/9/14	82.6	7,386	6,060	3,598	359,460	8,378	
2	7/10/14	85.2	7,788	7,356	4,459	422,560	8,902	
3	7/11/14	85.7	7,743	6,188	4,402	420,800	9,110	
4	7/12/14	84.8	7,472	5,685	4,431	422,320	9,008	
5	7/13/14	85.3	7,568	6,995	4,487	420,760	9,018	
6	7/14/14	84.6	7,402	5,956	4,230	422,000	9,036	
7	7/15/14	85.8	7,214	7,711	4,487	422,120	8,932	
8	7/16/14	80.1	6,760	6,186	4,230	425,500	9,022	
9	7/17/14	78.4	7,291	6,577	4,920	420,620	10,303	
10	7/18/14	78.2	6,823	5,109	5,290	418,160	8,962	
11	7/19/14	80.1	6,936	5,827	4,334	415,060	8,901	
12	7/20/14	79.9	6,637	6,324	4,460	424,580	8,846	
13	7/21/14	80.2	6,614	5,947	5,120	417,440	8,855	
14	7/22/14	80.5	6,662	5,650	5,033	419,640	8,850	
15	7/25/14	79.3	6,632	5,319	4,976	420,600	8,801	
16	7/29/14	81.7	6,520	5,371	4,775	417,160	8,001	

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	8,188	8,373	72	Marcellus Shale
18	7/30/14	7,939	8,123	72	Marcellus Shale
19	8/2/14	7,690	7,867	72	Marcellus Shale
20	8/6/14	7,506	7,623	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	7/30/14	81.2	6,591	6,503	3,892	422,300	8,843	
18	8/2/14	82.4	6,732	6,587	5,033	417,300	8,651	
19	8/6/14	80.3	6,774	6,389	5,177	414,681	8,934	
20	8/7/14	62.6	8,672	6,526	5,961	7,960	4,124	

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<u>PRODUCING FORMATION(S)</u>	<u>DEPTHS</u>	
<u>Marcellus Shale</u>	<u>6,777' to 6,772'</u> TVD	<u>7,506' to 12,379'</u> MD
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please insert additional pages as applicable.

GAS TEST Build up Drawdown Open Flow OIL TEST Flow Pump

SHUT-IN PRESSURE Surface 2,652 psi Bottom Hole 4,413 calculated psi DURATION OF TEST 69.2 hrs

OPEN FLOW Gas 2,603 mcfpd Oil _____ bpd NGL 230.4 bpd Water 556.8 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	
	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 3475 Washington Ave / 1178 US HWY 33 East City Finleyville / Weston State PA / WV Zip 15332 / 26452

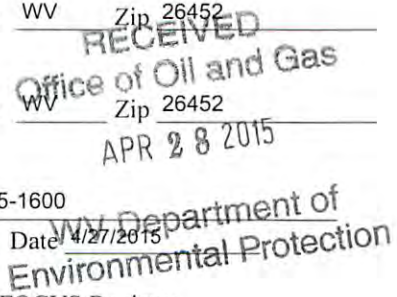
Cementing Company Schlumberger
Address 1178 US HWY 33 East City Weston State WV Zip 26452

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



Stone #2H
API 47-103-02847
Stone Energy Corporation

	Horizontal		Bottom (ft TVD)	Bottom (ft MD)
	Top (ft TVD)	Top (ft MD)		
Sandstone & Shale	Surface	*	840	FW @ 93
Coal	840	*	842	
Sandstone & Shale	842	*	1,026	
Sandstone & Shale	1,026	*	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	*	6,039	6,055
Rhinestreet	6,039	6,055 ~	6,440	6,533
Cashaqua	6,440	6,533 ~	6,583	6,793
Middlesex	6,583	6,793 ~	6,612	6,861
West River	6,612	6,861 ~	6,666	7,027
Geneseo	6,666	7,027 ~	6,679	7,074
Tully Limestone	6,679	7,074 ~	6,715	7,224
Hamilton Shale	6,715	7,224 ~	6,762	7,413
Marcellus	6,762	7,413 ~	6,772	12,460

TD

* 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:	8/8/2014
State:	West Virginia
County/Parish:	Wetzel County
API Number:	47-103-02847
Operator Name:	Stone Energy
Well Name and Number:	Stone 2H
Longitude:	518,697
Latitude:	4,389,053
Long/Lat Projection:	
Production Type:	
True Vertical Depth (TVD):	0
Total Water Volume (gal)*:	7323201

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, Accelerator, Propping Agent, Fluid Loss	Water (Including Mix Water Supplied by Client)*	NA		88.43603%	
			Crystalline silica	14808-60-7	98.37523%	11.37608%	
			Hydrochloric acid	7647-01-0	0.88043%	0.10181%	
			Carbohydrate polymer	Proprietary	0.72074%	0.08335%	
			Ammonium sulfate	7783-20-2	0.18747%	0.02168%	
			Polyethylene glycol monohexyl ether	31726-34-8	0.06775%	0.00783%	
			Glutaraldehyde	111-30-8	0.05764%	0.00667%	
			Urea	57-13-6	0.03124%	0.00361%	
			Diammonium peroxydisulfate	7727-54-0	0.02976%	0.00344%	
			Calcium chloride	10043-52-4	0.01662%	0.00192%	
			Dicoco dimethyl quaternary ammonium chloride	61789-77-3	0.00521%	0.00060%	
			Trisodium ortho phosphate	7601-54-9	0.00423%	0.00049%	
			Ethane-1,2-diol	107-21-1	0.00423%	0.00049%	
			Methanol	67-56-1	0.00342%	0.00040%	
			Sodium erythorbate	6381-77-7	0.00284%	0.00033%	
			Aliphatic alcohols, ethoxylated #2	Proprietary	0.00256%	0.00030%	
			Aliphatic acids	Proprietary	0.00256%	0.00030%	
			Prop-2-yn-1-ol	107-19-7	0.00085%	0.00010%	

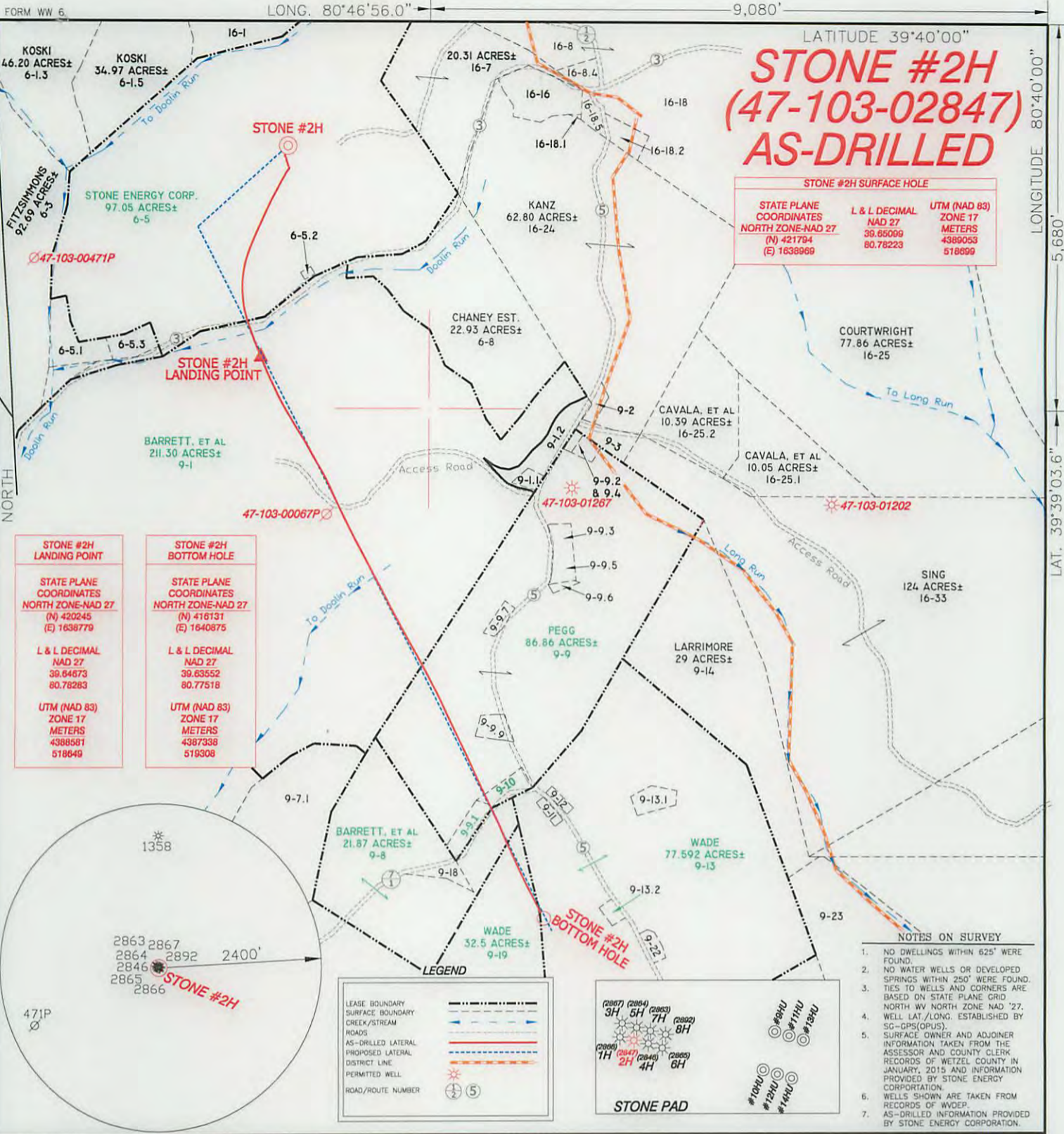
* Total Water Volume sources may include fresh water, produced water, and/or recycled water

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

Report ID: RPT-29861 (Generated on 8/25/2014 1:07 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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STONE #2H (47-103-02847) AS-DRILLED

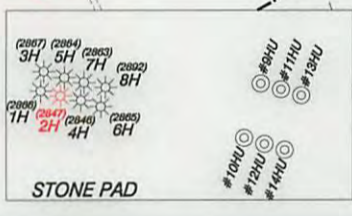
STONE #2H SURFACE HOLE		
STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 421794 (E) 1638969	L & L DECIMAL NAD 27 39.65099 80.78223	UTM (NAD 83) ZONE 17 METERS 4389053 518699

STONE #2H LANDING POINT	STONE #2H BOTTOM HOLE
STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 420245 (E) 1638779	STATE PLANE COORDINATES NORTH ZONE-NAD 27 (N) 416131 (E) 1640875
L & L DECIMAL NAD 27 39.64673 80.78283	L & L DECIMAL NAD 27 39.63552 80.77518
UTM (NAD 83) ZONE 17 METERS 4388581 518649	UTM (NAD 83) ZONE 17 METERS 4387338 519308

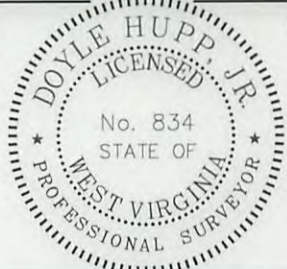
- NOTES ON SURVEY**
- NO DWELLINGS WITHIN 625' WERE FOUND.
 - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250' WERE FOUND. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27.
 - WELL LAT./LONG. ESTABLISHED BY SG-GPS(OPUS).
 - SURFACE OWNER AND ADJOINER INFORMATION TAKEN 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.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE APRIL 8, 20 15
 OPERATORS WELL NO. STONE #2H
 API WELL NO. 47-103-02847
 STATE COUNTY PERMIT

P.S. 834

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

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 527.17± **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-6,792' MD-12,402'

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