west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

August 17, 2015

WELL WORK PERMIT

Horizontal 6A Well

This permit, API Well Number: 47-9502288, issued to STONE ENERGY CORPORATION, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin
Chief

Operator's Well No: 4H
Farm Name: MORRIS, BOB & KAY
API Well Number: 47-9502288
Permit Type: Horizontal 6A Well
Date Issued: 08/17/2015

Promoting a healthy environment.

API Number: _____

PERMIT CONDITIONS 4709502288

West Virginia Code § 22-6A-8(d) allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. This proposed activity may require permit coverage from the United States Army Corps of Engineers (USACE). Through this permit, you are hereby being advised to consult with USACE regarding this proposed activity.

2. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6A-5a (12), which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than one hundred (100) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.

3. When compacting fills, each lift before compaction shall not be more than 12 inches in height, and the moisture content of the fill material shall be within limits as determined by the Standard Proctor Density test of the actual soils used in specific engineered fill, ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort, to achieve 95 % compaction of the optimum density. Each lift shall be tested for compaction, with a minimum of two tests per lift per acre of fill. All test results shall be maintained on site and available for review.

4. Operator shall install signage per § 22-6A-8g (6) (B) at all source water locations included in their approved water management plan within 24 hours of water management plan activation.

5. Oil and gas water supply wells will be registered with the Office of Oil and Gas and all such wells will be constructed and plugged in accordance with the standards of the Bureau for Public Health set forth in its Legislative rule entitled *Water Well Regulations,* 64 C.S.R. 19. Operator is to contact the Bureau of Public Health regarding permit requirements. In lieu of plugging, the operator may transfer the well to the surface owner upon agreement of the parties. All drinking water wells within fifteen hundred feet of the water supply well shall be flow tested by the operator upon request of the drinking well owner prior to operating the water supply well.

6. Pursuant to the requirements pertaining to the sampling of domestic water supply wells/springs the operator shall, no later than thirty (30) days after receipt of analytical data provide a written copy to the Chief and any of the users who may have requested such analyses.

7. If any explosion or other accident causing loss of life or serious personal injury occurs in or about a well or well work on a well, the well operator or its contractor shall give notice, stating the particulars of the explosion or accident, to the oil and gas inspector and the Chief, within 24 hours of said accident.

8. During the casing and cementing process, in the event cement does not return to the surface, the oil and gas inspector shall be notified within 24 hours.

9. Operator shall provide the Office of Oil & Gas notification of the date that drilling commenced on this well. Such notice shall be provided by sending an email to DEPOOGNotify@wv.gov within 30 days of commencement of drilling.

4709502288

June 26th, 2015

Laura Adkins and Wade Stansberry
West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th Street SE
Charleston, West Virginia 25304

RE: Proposed Morris Unit #4H & #6H Marcellus wells, Tyler Co.
Well work permit applications.
These are additional permits for the Morris unit in Tyler County. (Farm Name: Morris, Bob & Kay)

Dear Laura & Wade:

Please find enclosed two well permits for our Morris unit. The Morris pad site is an existing pad site having 6 current permitted API wells starting with #47-9502131. (Farm Name: Morris, Bob & Kay)

If you require any additional information, do not hesitate to contact me.

Thank you for your assistance.

Best Regards,

Tim McGregor
Land Coordinator
Stone Energy Corporation
(304) 225-1788
mcgregortp@stoneenergy.com

RECEIVED
Office of Oil and Gas

JUL 06 2015

WV Department of
Environmental Protection

WW-9 ADDENDUM 4709502288

Drilling Medium Anticipated for This well

- Vertical section of well bore, down to KOP, will be drilled on air and/or a combination of air and drilling soap.
- From KOP through the curve section and horizontal section of well bore will be drilled on a brine-water based mud system.

Additives to be Used While Drilling

- Common additives when air drilling: KCl *(CAS No. 1302-78-9 & 14808-60-7)*, soda ash *(CAS No. 497-19-8)*, shale stabilizer *(CAS No 67-48-1 & 7732-1835)*, drilling soap *(CAS No. 111-76-2)*, air hammer/motor lubricant.
- Common water based additives for mud drilling: NaCl *(CAS No. 7647-14-5)*, KCl *(CAS No. 7447-40-7)*, barite *(CAS No. 13462-86-7 & 14808-60-7)*, starch *(CAS No. 9005-25-8)*, PAC *(CAS No. 9004-32-4)*, xanthum gum *(CAS No. 11138-66-2)*, PHPA *(CAS No. 64742-47-8)*, polysaccharide *(CAS No. 11138-66-2)*, sulfonated asphaltic material *(CAS No. 269-212-0 & 238-878-4)*, aluminum silicate *(CAS No. 37287-16-4)*, gilsonite *(CAS No. 12002-43-6)*, graphite *(CAS No.14808-60-7 & 7782-42-5)*, shale stabilizer *(CAS No. 67-48-1 & 7732-18-5)*, fluid loss control polymers *(CAS No. 9004-34-6)*, viscosity control polymers *(CAS No. 11138-66-2 & 107-22-2)*, soda ash *(CAS No. 497-19-8)*, sodium bicarbonate *(CAS No. 144-55-8)*, NaOH *(CAS No. 1310-73-2, 7647-14-5, & 7732-18-5)*, lime *(CAS No. 1305-62-0)*, gypsum *(CAS No.778-18-9)* , citric acid *(CAS No. 77-92-9)*, biocide *(CAS No. 52-51-7 or 7732-18-5 + 67-56-1 + 141-43-5)*, $CaCO_3$ *(CAS No. 471-34-1)* , cellulose fibers *(CAS No. 14808-60-7)*, nut plug *(CAS No. 9004-34-6 & 14808-60-7)*, cross-linking polymers *(CAS No. 107-22-2 & 11138-66-2)*, other LCMs, surfactants *(CAS No. 64-17-5)* , ROP enhancer/lubricant *(CAS No. 8002-13-9)*, beads, corrosion inhibitor *(CAS No. 7732-18-5)*, aluminum stearate *(CAS No. 300-92-5)*, defoamer *(CAS No. 246-771-9)*.

MSDS are available upon request.

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

STONE ENERGY

4709502288

WW-9 ADDENDUM

Drill Cuttings Disposal Method

- Closed loop drilling system will be incorporated. No waste pits will be constructed. All drill cuttings are put through a drier system and hauled to and disposed of at approved and permitted landfills.

Landfills or Offsite Names and Permit Numbers

Wetzel County Sanitary Landfill
Rt. 1, Box 156A
New Martinsville, WV 26155
SWF-1021 / WV01909185

Brooke County Sanitary Landfill
Colliers, WV 26035
SWF-1013 / WV0109029

RECEIVED
Office of Oil and Gas

JUL 06 2015

WV Department of
Environmental Protection

WW-6B
(04/15)

API NO. 47- 095 - 02288
OPERATOR WELL NO. #4H
Well Pad Name: Morris
Modification

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WELL WORK PERMIT APPLICATION

1) Well Operator: Stone Energy Corporation | 494490923 | Tyler | Ellsworth | Porters Falls
Operator ID | County | District | Quadrangle

2) Operator's Well Number: #4H Well Pad Name: Morris

3) Farm Name/Surface Owner: Morris, Bob & Kay Public Road Access: Tyler County Route 32/1

4) Elevation, current ground: 1,095' Elevation, proposed post-construction: 1,095

5) Well Type (a) Gas X Oil _____ Underground Storage _____
Other _____
(b)If Gas Shallow X Deep _____
Horizontal X

6) Existing Pad: Yes or No Yes

7) Proposed Target Formation(s), Depth(s), Anticipated Thickness and Expected Pressure(s):
Marcellus Shale @ 6,558' TVD (5,472' SSL). Thickness = 46'. RP = 4,000 to 4,400 psig.

8) Proposed Total Vertical Depth: 6,660' TVD

9) Formation at Total Vertical Depth: Marcellus Shale

10) Proposed Total Measured Depth: 12,130' MD

11) Proposed Horizontal Leg Length: From LP = 5,020' From KOP = 6,242'

12) Approximate Fresh Water Strata Depths: 75', 270', and 980'

13) Method to Determine Fresh Water Depths: When having to soap wellbore or show of fluid at end of flow line

14) Approximate Saltwater Depths: 1,820'

15) Approximate Coal Seam Depths: 880'

16) Approximate Depth to Possible Void (coal mine, karst, other): None Anticipated

17) Does Proposed well location contain coal seams directly overlying or adjacent to an active mine? Yes _____ No X

(a) If Yes, provide Mine Info: Name: _____
Depth: _____
Seam: _____
Owner: _____

RECEIVED
Office of Oil and Gas
AUG 06 2015
WV Department of Environmental Protection

GCS 8/6/15

WW-6B
(04/15)

API NO. 47- 095 - 02288
OPERATOR WELL NO. #4H
Well Pad Name: Morris
Modification

18) **CASING AND TUBING PROGRAM**

TYPE	Size (in)	New or Used	Grade	Weight per ft. (lb/ft)	FOOTAGE: For Drilling (ft)	INTERVALS: Left in Well (ft)	CEMENT: Fill-up (Cu. Ft.)/CTS
Conductor	20.0	New	LS	94.1 ppf	125'	125'	65 - CTS
Fresh Water	13.375	New	J55	54.5 ppf	1,080'	1,080'	1,004 - CTS
Coal	13.375	New	J55	54.5 ppf	1,080'	1,080'	1,004 - CTS
Intermediate	9.625	New	J55	36.0 ppf	2,410'	2,410'	Lead-471 Tail-520 CTS
Production	5.5	New	P110	20.0 ppf		12,130'	2,856 - CT 1,410'
Tubing	2.375	New	J55	4.7		6,400'	N/A
Liners							

Note: The Fresh Water/Coal casing setting septh is just above Sea Level. At no time will the casing be set below Sea Level. This setting depth is due to sloughing formation below the Pittsburgh Coal seam.

TYPE	Size (in)	Wellbore Diameter (in)	Wall Thickness (in)	Burst Pressure (psi)	Anticipated Max. Internal Pressure (psi)	Cement Type	Cement Yield (cu. ft./k)
Conductor	20.0	24.0	0.375	N/A	N/A	Type 1	1.18
Fresh Water	13.375	17.5	0.380	2,730	<1,000 (Cementing)	Class "A"	1.24
Coal	13.375	17.5	0.380	2,730	<1,000 (Cementing)	Class "A"	1.24
Intermediate	9.625	12.25	0.352	3,520	<1,800 (Cementing)	VariCem	Lead-1.24 Tail-1.21
Production	5.5	8.75	0.361	12,360	<9,600 (Stimulation)	VariCem	1.21
Tubing	2.375	N/A	0.190	7,700	~4,400	N/A	N/A
Liners							

PACKERS

RECEIVED
Office of Oil and Gas
AUG 06 2015
WV Department of Environmental Protection

GCS 8/6/15

Kind:	Tam Cap			
Sizes:	9.625" x 13.375"			
Depths Set:	900'			

WW-6B
(10/14)

API NO. 47- 095 - 02288
OPERATOR WELL NO. #4H
Well Pad Name: Morris
Modification

19) Describe proposed well work, including the drilling and plugging back of any pilot hole:

Proposed well to include the use of a conductor rig to drill, set and CBTS 20" conductor. A top hole rig will be MIRU to drill, set and CBTS the 13.375" and 9.625" casing strings. The rig will then continue to drill the 8.75" hole section to KOP at which time the hole will be loaded with 3% KCl fluid. The 12.25" section will be drilled using a directional motor to maintain collision avoidance. Next the horizontal rig will be MIRU and continue to drill 8.75" hole from KOP thru the curve to the LP. Drilling will continue to the MD/TVD, run 5.5" casing and cement back into the 9.625" casing string 500' A night cap will then be installed on the well and rig skidded to the next well or RDMO to the next pad.

20) Describe fracturing/stimulating methods in detail, including anticipated max pressure and max rate:

Stimulation will begin by MIRU of coil tubing unit or service rig. The 5.5" casing is then cleaned out to the PBTD and a CBL is then run to approximately 60 degrees in the curve and pulled to surface. The next step is to perforate the toe stage. A stimulation company is then MIRU and the toe stage is fractured. Maximum pump rate ~85 bpm and Maximum pressure ~9,600 psi. Each subsequent stage is then perforated after a pump down frac plug is set and the stage is perforated. After all stages are completed the well is SI and the stimulation company is RDMO. A coil tubing unit or service rig with snubbing unit is then MIRU and the frac plugs are drilled out and the 5.5" casing cleared to the PBTD. The rig is then RDMO and a flow back crew is RU to flow back the free water to frac tanks. Once well begins to gas it is either flared or placed in line through a separator and produced. The well is next turned over to production and the flow back crew is RDMO.

21) Total Area to be disturbed, including roads, stockpile area, pits, etc., (acres): 15.9

22) Area to be disturbed for well pad only, less access road (acres): 6.26

23) Describe centralizer placement for each casing string:

The fresh water/coal string will incorporate the use use of bow spring centralizers beginning generally on joint 2 to surface on every third joint. The intermediate string will incorporate bow spring centralizers with one on joint 2 and then every fourth joint to surface. The production string will use left and right alternating rigid centralizers beginning on joint 2 to the pup joint 100' above the KOP. From there to the top of cement bow spring centralizers will be used on every third joint.

24) Describe all cement additives associated with each cement type:

Fresh water/coal string cement is generally HalCem which is a Class "A" cement with 0.25 pps Cello Flake with up to 2% CaCl. The intermediate casing cement is also generally HalCem Class "A" iwth a lead and tail mixed at different weights. At time the lead cement on this string will contain 10% NaCl which has expanding properties. The production string is generally cemented with VariCem which is a Class "A" that can be mixed at different weights.

RECEIVED
Office of Oil and Gas
AUG 06 2015
WV Department of
Environmental Protection

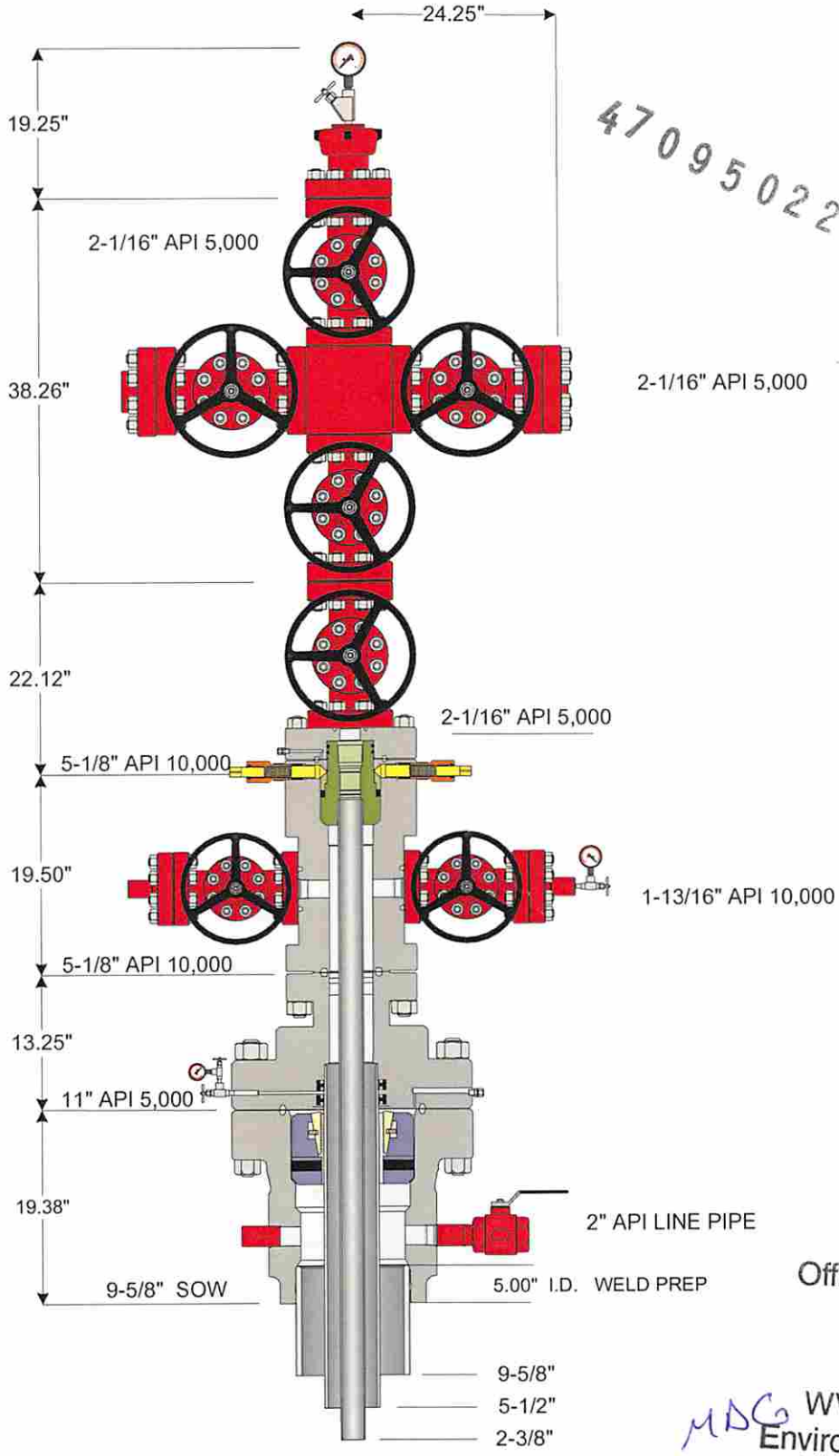
25) Proposed borehole conditioning procedures:

-The 17.5" section will be conditioned using air and/or until cuttings are removed from the well bore.
-Intermediate 12.25" section will be conditioned using air and/or stiff foam until cutting have been removed fro the well bore.
-The 8.75" section will be conditioned with a minimum of three bottoms up of drilling fluid (mud) and the shakers screens are clear of cuttings.

*Note: Attach additional sheets as needed.

GCS
8/6/15

NOTE: THIS DRAWING IS NOT TO SCALE. THE DIMENSIONS REFLECTED ON THE DRAWING ARE ESTIMATED MEASUREMENTS AND FOR REFERENCE ONLY.



4709502283

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

MDG
6/24/15

Weatherford

© 2010 Weatherford International Inc. All rights reserved

Customer: STONE ENERGY	Project: 46705	Quote: 99565 v 3
Tender, Project or Well: 2011- 2012 CONVENTIONAL MARCELLUS	Date: 07-17-2011	Drawn By: RF

WW-9
(2/15)

API Number 47 - 095 - _____
Operator's Well No. #4H

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

FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN 4709502288

Operator Name Stone Energy Corporation OP Code 494490923

Watershed (HUC 10) Lynncamp Creek Quadrangle Porters Falls

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes ☑ No ☐

Will a pit be used? Yes ☐ No ☑

If so, please describe anticipated pit waste: N/A

Will a synthetic liner be used in the pit? Yes ☐ No ☑ If so, what ml.? N/A

MAG 6/24/15

Proposed Disposal Method For Treated Pit Wastes:

_____ Land Application
■ Underground Injection (UIC Permit Number 2D0855151, 2D0859721, 34-121-24086, 34-121-23995, 34-105-23619)
■ Reuse (at API Number Flow back to be stored in tanks and used at an as yet to be determined well pad)
_____ Off Site Disposal (Supply form WW-9 for disposal location)
_____ Other (Explain _____

Will closed loop system be used? If so, describe: Cuttings will be taken off the drying shakers and fluids will be returned to the system

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. Vertical-Air/Foam/Drilling Soap Curve and Lateral-Saturated Salt

-If oil based, what type? Synthetic, petroleum, etc. N/A

Additives to be used in drilling medium? See attached WW-9 Addendum

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. Dewater and dispose of in anapproved and permitted landfill

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) N/A

-Landfill or offsite name/permit number? Wetzel Co. Sanitary Landfill (SWF-1021/WV0109185)
Brooke Co. Landfill (SWPU 14-04-16)

Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of Environmental Protection

Company Official Signature Roger L. Cutright

Company Official (Typed Name) Roger L. Cutright

Company Official Title Land Manager/Special ~~Council~~ Counsel

Subscribed and sworn before me this 2nd day of July 2015

Danielle L. Snoderly Notary Public

My commission expires 5/18/2021

OFFICIAL SEAL
NOTARY PUBLIC - STATE OF WEST VIRGINIA
Danielle L Snoderly
445 Davys Run Road
Fairmont, WV 26554
My Commission Expires May 18, 2021

Form WW-9

Operator's Well No. #4H

Proposed Revegetation Treatment: Acres Disturbed 19.08 Prevegetation pH

Lime 2.0 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20 or Equivalent

Fertilizer amount 500 to 750 lbs/acre

Mulch 0.50 to 0.75 plus Straw Tons/acre

4709502288

Seed Mixtures

Temporary		Permanent	
Seed Type	lbs/acre	Seed Type	lbs/acre
Marcellus Mix	100.0	Marcellus Mix	100.0
White or Ladino Clover	10.0	White or Ladino Clover	10.0
Orchard Grass	40.0	Orchard Grass	40.0
Winter Rye	50.0	Winter Rye	50.0

Attach:
Drawing(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided)

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Michael Daff

Comments: Preseed & mulch any disturbed areas per WVDEP regs. Maintain & upgrade E-n-S as necessary.

Title: Oil & Gas Inspector Date: 6/22/15

Field Reviewed? (✓) Yes ( ) No

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

4709502222

Well Site Safety Plan

Morris Well Pad
Ellsworth District, Tyler County

Morris 4H

Michael Daff
6/24/15

Stone Energy Corporation
1300 Ft. Pierpont Dr. Suite 201
Morgantown, West Virginia 26508
(304) 225-1600

Initial Preparation: June 18, 2015

RECEIVED
Office of Oil and Gas

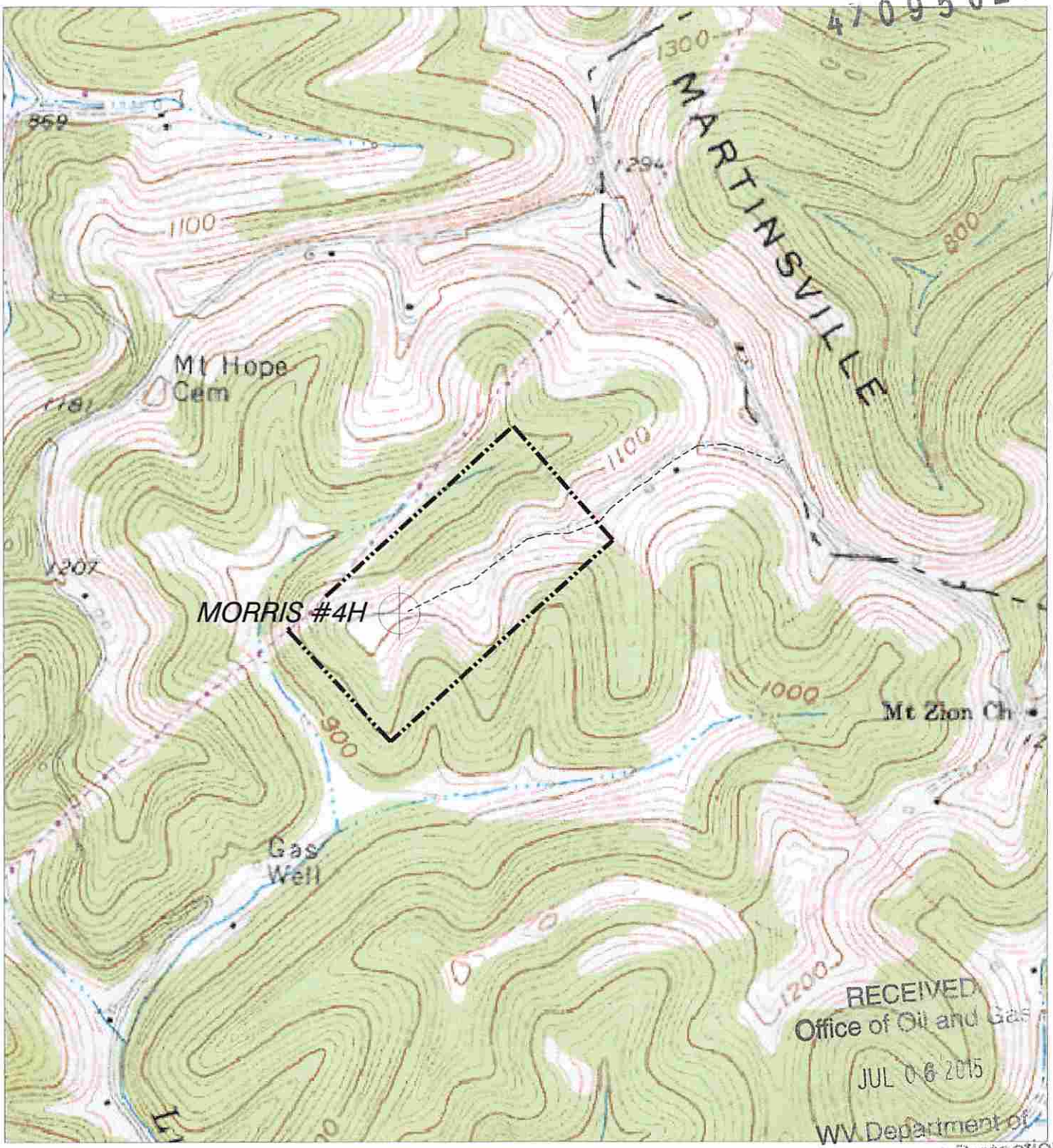
JUL 06 2015

WV Department of
Environmental Protection

Form W-9

Stone Energy Corporation Morris #4H

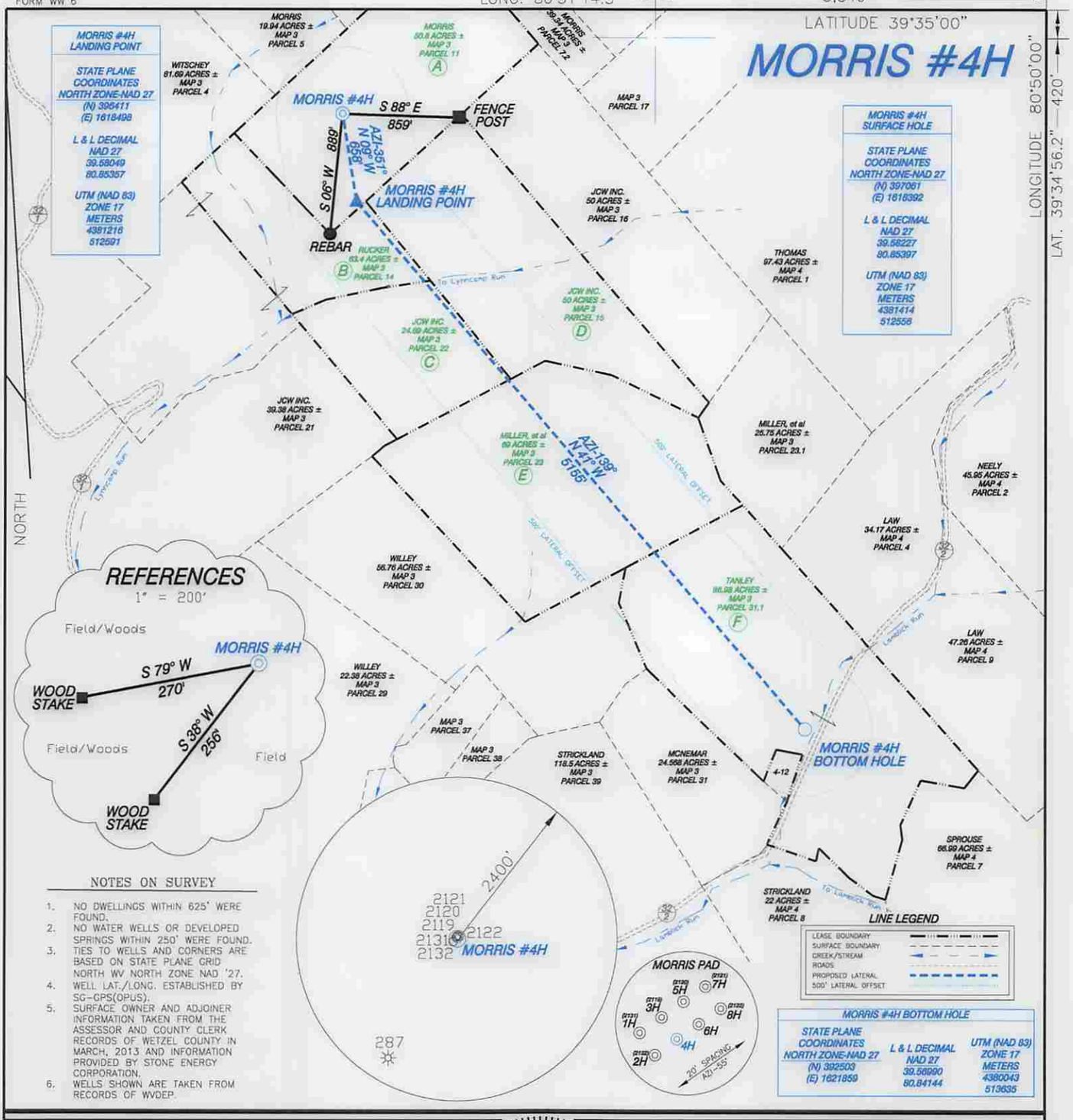
4709502288



RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of Environmental Protection

HUPP Surveying & Mapping P.O. BOX 647 GRANTSVILLE, WV 26147 PH:(304)354-7035 E-MAIL: hupp@frontiernet.net	1" = 1000' Porters Falls 7.5'	Stone Energy Corp. P.O. Box 52807 Lafayette, LA 70508

FORM WW 6



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 MARCH, 2013 AND INFORMATION PROVIDED BY STONE ENERGY CORPORATION.
6. WELLS SHOWN ARE TAKEN FROM RECORDS OF WVDEP.

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

DOYLE HUPP, JR. LICENSED No. 834 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE JUNE 16, 20 15

OPERATORS WELL NO. MORRIS #4H

API WELL NO. 47 — 095 — 02288 HGA
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/2500 FILE NO. W2128 (BK 57-12)
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 X LIQUID INJECTION ___ WASTE DISPOSAL ___ IF "GAS" PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X

LOCATION :
ELEVATION 1,095' WATERSHED LYNNCAMP RUN
DISTRICT ELLSWORTH COUNTY TYLER QUADRANGLE PORTERS FALLS 7.5'
SURFACE OWNER BOB & KAY MORRIS ACREAGE 50.8±
ROYALTY OWNER BOB & KAY MORRIS, et al LEASE ACREAGE 344.87±
PROPOSED WORK : LEASE NO. ___
DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X 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 6,660' MD 12,130'

COUNTY NAME

PERMIT

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

WW-6A1
(5/13)

Operator's Well No. #4H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6A, Section 5(a)(5)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –

(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;

(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Lease Name or Number	Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page
See Attached List				

4709502288

Acknowledgement of Possible Permitting/Approval
In Addition to the Office of Oil and Gas

The permit applicant for the proposed well work addressed in this application hereby acknowledges the possibility of the need for permits and/or approvals from local, state, or federal entities in addition to the DEP, Office of Oil and Gas, including but not limited to the following:

- WV Division of Water and Waste Management
- WV Division of Natural Resources WV Division of Highways
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- County Floodplain Coordinator

The applicant further acknowledges that any Office of Oil and Gas permit in no way overrides, replaces, or nullifies the need for other permits/approvals that may be necessary and further affirms that all needed permits/approvals should be acquired from the appropriate authority before the affected activity is initiated.

Well Operator: Stone Energy Corporation
By: Roger L. Knight
Its: Land Manager/Special Counsel

4709502288

WW-6A1 (Attachment) **Operator's Well Number:** Morris #4H

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE
Chapter 22, Article 6, Section 8(d)
IN LIEU OF FILING LEASE(S) AND OTHER CONTINUING CONTRACT(S)

Grantor, Lessor, etc.	Grantee, Lessee, etc.	Royalty	Book/Page	Map/Parcel	Code
Joyce Kay Morris	Stone Energy Corporation	1/8	379/1	2-3-11	A
Carl G. Rucker	Stone Energy Corporation	1/8	409/689	2-3-14	B
JCW, Inc.	Stone Energy Corporation	1/8	425/784	2-3-22	C
JCW, Inc.	Stone Energy Corporation	1/8	425/788	2-3-15	D
Fisher Oil Company	Stone Energy Corporation	1/8	415/404	2-3-23	E
David W. Miller	Stone Energy Corporation	1/8	410/548, 410/550	2-3-23	E
Amanda L. Eads	Stone Energy Corporation	1/8	407/305, 407/307	2-3-23	E
Lisa A. Rebmann	Stone Energy Corporation	1/8	409/711, 409/713	2-3-23	E
Nelda Jean Kocher	Stone Energy Corporation	1/8	415/408	2-3-31.1	F
Ray Lloyd Inzer, Jr.	Stone Energy Corporation	1/8	415/438	2-3-31.1	F
Carol Inzer Huff	Stone Energy Corporation	1/8	415/386	2-3-31.1	F
Susan Inzer King	Stone Energy Corporation	1/8	415/444	2-3-31.1	F
George L. Kirk	Stone Energy Corporation	1/8	415/420	2-3-31.1	F
Howard Lee Mercer	Stone Energy Corporation	1/8	409/740	2-3-31.1	F
Shirley A. Mercer Van Camp	Stone Energy Corporation	1/8	415/396	2-3-31.1	F
Cheryl E. Mercer aka Cheryl E. Mercer Velloney	Stone Energy Corporation	1/8	415/376	2-3-31.1	F
Ryan Russell Mercer	Stone Energy Corporation	1/8	439/607	2-3-31.1	F
Amanda Rice	Stone Energy Corporation	1/8	417/801	2-3-31.1	F
Cody Rice	Stone Energy Corporation	1/8	418/46	2-3-31.1	F
Carol Amos	Stone Energy Corporation	1/8	415/378	2-3-31.1	F
Mary Lou Hall	Stone Energy Corporation	1/8	409/734	2-3-31.1	F
Ruth Dailey	Stone Energy Corporation	1/8	415/422	2-3-31.1	F
Carl Rice	Stone Energy Corporation	1/8	415/394	2-3-31.1	F
David A. Bell, Sr.	Stone Energy Corporation	1/8	418/40	2-3-31.1	F
Ruth Emerson	Stone Energy Corporation	1/8	427/377	2-3-31.1	F
Laura Riley	Stone Energy Corporation	1/8	420/532	2-3-31.1	F
Samuel Phillips	Stone Energy Corporation	1/8	420/534	2-3-31.1	F
Penny Byrd	Stone Energy Corporation	1/8	420/530	2-3-31.1	F
Sandra Pelletier	Stone Energy Corporation	1/8	418/34	2-3-31.1	F
Doris J. Trader	Stone Energy Corporation	1/8	418/26	2-3-31.1	F
Karen Stearnes	Stone Energy Corporation	1/8	418/24	2-3-31.1	F
John Stearnes	Stone Energy Corporation	1/8	418/42	2-3-31.1	F
Wendy Westbrook	Stone Energy Corporation	1/8	418/22	2-3-31.1	F
The Jacobs Legacy Revocable Trust; Trustee: Jeffrey L. Jacobs	Stone Energy Corporation	1/8	418/38	2-3-31.1	F
Velva M. Shuman	Stone Energy Corporation	1/8	415/374	2-3-31.1	F
John Stender Heirs	Stone Energy Corporation	1/8	14-c-52	2-3-31.1	F

A.E. Larrick and C.M. Founds, Trustees for the creditors of Joseph Stender	Stone Energy Corporation	1/8	14-c-52	2-3-31.1	F
Richard Talbot	Stone Energy Corporation	1/8	14-c-52	2-3-31.1	F
Blanche W. Beecher Heirs	Stone Energy Corporation	1/8	14-c-52	2-3-31.1	F
Garravine L. Ice	Stone Energy Corporation	1/8	435/357	2-3-31.1	F
Nial M. Wheeler	Stone Energy Corporation	1/8	435/359	2-3-31.1	F
Jack F. Hill	Stone Energy Corporation	1/8	435/355	2-3-31.1	F
Theodore Bryson Walters	Stone Energy Corporation	1/8	435/353	2-3-31.1	F
David William Walters	Stone Energy Corporation	1/8	435/351	2-3-31.1	F
The Robert L. Morris Trust UW for the Curtin Family	Stone Energy Corporation	1/8	Memorandum Included	2-3-31.1	F
The Robert L. Morris Trust UW for the Van Kirk Family	Stone Energy Corporation	1/8	Memorandum Included	2-3-31.1	F

Under the oath required to make the verification on page 1 of this Notice and Application, I depose and say that I am the person who signed the Notice and Application for the Applicant, and that –
(1) the tract of land is the same tract described in this Application, partly or wholly depicted in the accompanying plat, and described in the Construction and Reclamation Plan;
(2) the parties and recordation data (if recorded) for lease(s) or other continuing contract(s) by which the Applicant claims the right to extract, produce or market the oil or gas are as follows:

Well Operator Stone Energy Corporation
By Roger L. Cutright
Title Land Manager/Special Counsel

4709502288

MEMORANDUM OF LEASE

This Memorandum of Lease is made and entered into on the 23rd day of June, 2015, by and between **The Robert Morris Trust UW for The Van Kirk Family, JPMORGAN CHASE BANK, N. A., TRUSTEE,** TX1-1315, P.O. BOX 2605, FORT WORTH, TEXAS 76113, as Lessor, and **Stone Energy Corporation,** 625 East Kaliste Saloom Road Lafayette, LA 70508, c/o Land Department, a Delaware corporation licensed to do business in West Virginia as a foreign corporation, as Lessee.

Whereas, by that Oil and Gas Lease dated June 23rd, 2015, Lessor agreed to lease to Lessee and Lessee agreed to lease from Lessor certain oil and gas rights in that certain parcel or tract of land situate in **Ellsworth** District, **Tyler** County, West Virginia, containing **10.25** acres, more or less, and being part of Tax ID: **48-02-03-031.1** and also the same real property interest and estate that was conveyed to Lessor by that certain **Will** dated **11/29/1963** and placed of record in the Clerk's Office of **Harrison** County, **WV** in **Will** Book # **61**, at page # **313**; provided however that such description was intended to include all strips, tracts or parcels of land now owned or hereafter acquired by Lessor that are contiguous or adjacent to the lands described above, and all interests in the lands described above now owned or hereafter acquired by Lessor. ("Leased Property").

Whereas, the Lease shall remain in force for a primary term of ~~five (5)~~ three (3) years from the 23rd day of June, 2015 and as long thereafter as either Oil and Gas are produced in paying quantities from the Leased Property or property unitized therewith.

Now, Therefore, Witnesseth: That in accordance with and pursuant to the provisions of West Virginia Code § 40-1-8, as in effect as of the date of this Memorandum, Lessor and Lessee hereby set forth the following information with respect to that certain Lease Agreement entered into and made by and between Lessor and Lessee:

1. LESSOR: **The Robert Morris Trust UW for The Van Kirk Family**, JPMORGAN CHASE BANK, N. A., TRUSTEE
2. LESSEE: Stone Energy Corporation
3. LESSOR'S ADDRESS: TX1-1315, P.O. BOX 2605, FORT WORTH, TEXAS 76113
4. LESSEE'S ADDRESS: c/o Land Department, 625 East Kaliste Saloom Road, Lafayette, LA 70508
5. LEASE AGREEMENT EXECUTION DATE: 6.23.2015 470950288
6. LEASE TERM:
   (a) COMMENCEMENT DATE: 6.23.2015
   (b) TERMINATION DATE: 6.23.2018 unless either Oil and Gas are produced in paying quantities from the Leased Property or property unitized therewith.
   (c) EXTENSION PERIOD OPTION: [yes/no]; if yes:
   (i) [date extension period may be exercised];
   (ii) [term of extension];
   (iii) [maximum date of extensions]; or
   (iv) [number of extension periods].

470950288

IN WITNESS WHEREOF, Lessor and Lessee have caused this Memorandum to be executed and effective as of the date first set forth above.

[Signature Page Follows]

Lessor

The Robert Morris Trust UW for The Van Kirk Family
JPMorgan Chase Bank, N.A., Trustee

Miles B. Schneider, Vice President

4709502288

Stone Energy Corporation
a Delaware Corporation

By: _____
Roger L. Cutright
Its: Land Manager and Special Counsel

ACKNOWLEDGMENT BY LESSOR

THE STATE OF TEXAS §
§
COUNTY OF TARRANT §

BEFORE ME, the undersigned, a Notary Public, on this day personally appeared Miles B. Schneider, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that the same was the act of the said JPMorgan Chase Bank, N.A. and that (s)he has executed the same as the act of such corporation for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this 23rd day of June 2015.

(SEAL)
JAMIE N TAFT
My Commission Expires
April 11, 2019

Notary Public in and for the State of
My Commission expires: 4/11/19

ACKNOWLEDGMENT BY LESSEE

STATE OF WEST VIRGINIA

COUNTY OF MONONGALIA

The foregoing instrument was acknowledged before me this 1st day of July, 2015 by Roger L. Cutright, Land Manager and Special Counsel, on behalf of Stone Energy Corporation, a Delaware corporation.

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
KATHY J STAMPER
508 Birdie Ct, Maidsville WV 26541
My Commission Expires May 18, 2021

Notary Public
My commission expires: 5-18-2021

June 29th, 2015

4709502288

Laura Atkins and Wade Stansberry
West Virginia Department of Environmental Protection
Office of Oil & Gas
601 57th Street SE
Charleston, West Virginia 25304

RE: Proposed Morris Unit #6H Marcellus well, Tyler Co.
Well work permit application Road Crossings
This is an additional permit for the Morris unit; that is built in Tyler County. (Farm Name: Morris, Bob & Kay)

Dear Laura & Wade:

You will see that we not crossing under roads or highways.

If you require any additional information, please do not hesitate to contact me.

Thank you for your assistance.

Best Regards,

Tim McGregor
Land Coordinator
Stone Energy Corporation
(304) 225-1788
mcgregortp@stoneenergy.com

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

WW-6AC
(1/12)

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE CERTIFICATION

Date of Notice Certification: 07/02/2015

API No. 47- 095 -
Operator's Well No. #4H
Well Pad Name: Morris

Notice has been given:
Pursuant to the provisions in West Virginia Code § 22-6A, the Operator has provided the required parties with the Notice Forms listed below for the tract of land as follows:

State:	West Virginia	UTM NAD 83	Easting:	512,556
County:	Tyler		Northing:	4,381,414
District:	Ellsworth	Public Road Access:		Tyler County Route 28/1
Quadrangle:	Porters Falls	Generally used farm name:		Morris, Bob and Kay
Watershed:	Lynncamp Creek			

Pursuant to West Virginia Code § 22-6A-7(b), every permit application filed under this section shall be on a form as may be prescribed by the secretary, shall be verified and shall contain the following information: (14) A certification from the operator that (i) it has provided the owners of the surface described in subdivisions (1), (2) and (4), subsection (b), section ten of this article, the information required by subsections (b) and (c), section sixteen of this article; (ii) that the requirement was deemed satisfied as a result of giving the surface owner notice of entry to survey pursuant to subsection (a), section ten of this article six-a; or (iii) the notice requirements of subsection (b), section sixteen of this article were waived in writing by the surface owner; and Pursuant to West Virginia Code § 22-6A-11(b), the applicant shall tender proof of and certify to the secretary that the notice requirements of section ten of this article have been completed by the applicant.

4709502288

Pursuant to West Virginia Code § 22-6A, the Operator has attached proof to this Notice Certification that the Operator has properly served the required parties with the following: *PLEASE CHECK ALL THAT APPLY	OOG OFFICE USE ONLY
☐ 1. NOTICE OF SEISMIC ACTIVITY or ☒ NOTICE NOT REQUIRED BECAUSE NO SEISMIC ACTIVITY WAS CONDUCTED	☐ RECEIVED/ NOT REQUIRED
☒ 2. NOTICE OF ENTRY FOR PLAT SURVEY or ☐ NO PLAT SURVEY WAS CONDUCTED	☐ RECEIVED
☐ 3. NOTICE OF INTENT TO DRILL or ☒ NOTICE NOT REQUIRED BECAUSE NOTICE OF ENTRY FOR PLAT SURVEY WAS CONDUCTED or ☐ WRITTEN WAIVER BY SURFACE OWNER (PLEASE ATTACH)	☐ RECEIVED/ NOT REQUIRED
☒ 4. NOTICE OF PLANNED OPERATION	☐ RECEIVED
☒ 5. PUBLIC NOTICE	☐ RECEIVED
☒ 6. NOTICE OF APPLICATION	☐ RECEIVED

Required Attachments:
The Operator shall attach to this Notice Certification Form all Notice Forms and Certifications of Notice that have been provided to the required parties and/or any associated written waivers. For the Public Notice, the operator shall attach a copy of the Class II Legal Advertisement with publication date verification or the associated Affidavit of Publication. The Notice Forms and Certifications of Notice shall serve as proof that the required parties have been noticed as required under West Virginia Code § 22-6A. Pursuant to West Virginia Code § 22-6A-11(b), the Certification of Notice to the person may be made by affidavit of personal service, the return receipt card or other postal receipt for certified mailing.

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

WW-6AC
(1/12)

Certification of Notice is hereby given:

THEREFORE, I Roger L. Cutright, have read and understand the notice requirements within West Virginia Code § 22-6A. I certify that as required under West Virginia Code § 22-6A, I have served the attached copies of the Notice Forms, identified above, to the required parties through personal service, by registered mail or by any method of delivery that requires a receipt or signature confirmation. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this Notice Certification and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator:	Stone Energy Corporation	Address:	1300 Fort Pierpont Drive - Suite 201
By:	Roger L. Cutright		Morgantown, WV 26508
Its:	Land Manager/Special Counsel	Facsimile:	(337) 521-9911
Telephone:	(304) 225-1789	Email:	CutrightRL@StoneEnergy.com

NOTARY SEAL
OFFICIAL SEAL
NOTARY PUBLIC - STATE OF WEST VIRGINIA
Danielle L Snoderly
445 Davys Run Road
Fairmont, WV 26554
My Commission Expires May 18, 2021

Subscribed and sworn before me this 2nd day of July 2015.

Danielle L. Snoderly Notary Public

My Commission Expires 5/18/2021

Oil and Gas Privacy Notice:
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

4709502288

RECEIVED
Office of Oil and Gas
JUL 06 2015
W.V. Department of
Environmental Protection

WW-6A
(9-13)

API NO. 47- 095 -
OPERATOR WELL NO. #4H
Well Pad Name: Morris

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**

Date of Notice: 07/02/2015 **Date Permit Application Filed:** 07/03/2015

Notice of:

☑ PERMIT FOR ANY WELL WORK ☐ CERTIFICATE OF APPROVAL FOR THE CONSTRUCTION OF AN IMPOUNDMENT OR PIT

4709502288

Delivery method pursuant to West Virginia Code § 22-6A-10(b)

☐ PERSONAL SERVICE ☑ REGISTERED MAIL ☐ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to W. Va. Code § 22-6A-10(b) no later than the filing date of the application, the applicant for a permit for any well work or for a certificate of approval for the construction of an impoundment or pit as required by this article shall deliver, by personal service or by registered mail or by any method of delivery that requires a receipt or signature confirmation, copies of the application, the erosion and sediment control plan required by section seven of this article, and the well plat to each of the following persons: (1) The owners of record of the surface of the tract on which the well is or is proposed to be located; (2) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for roads or other land disturbance as described in the erosion and sediment control plan submitted pursuant to subsection (c), section seven of this article; (3) The coal owner, operator or lessee, in the event the tract of land on which the well proposed to be drilled is located [sic] is known to be underlain by one or more coal seams; (4) The owners of record of the surface tract or tracts overlying the oil and gas leasehold being developed by the proposed well work, if the surface tract is to be used for the placement, construction, enlargement, alteration, repair, removal or abandonment of any impoundment or pit as described in section nine of this article; (5) Any surface owner or water purveyor who is known to the applicant to have a water well, spring or water supply source located within one thousand five hundred feet of the center of the well pad which is used to provide water for consumption by humans or domestic animals; and (6) The operator of any natural gas storage field within which the proposed well work activity is to take place. (c)(1) If more than three tenants in common or other co-owners of interests described in subsection (b) of this section hold interests in the lands, the applicant may serve the documents required upon the person described in the records of the sheriff required to be maintained pursuant to section eight, article one, chapter eleven-a of this code. (2) Notwithstanding any provision of this article to the contrary, notice to a lien holder is not notice to a landowner, unless the lien holder is the landowner. W. Va. Code R. § 35-8-5.7.a requires, in part, that the operator shall also provide the Well Site Safety Plan ("WSSP") to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

☑ Application Notice ☑ WSSP Notice ☑ E&S Plan Notice ☑ Well Plat Notice is hereby provided to:

☑ SURFACE OWNER(s)
Name: Joyce Kay Morris
Address: R.D. 1 Box 61
Proctor, WV. 26055
Name:
Address:

☑ SURFACE OWNER(s) (Road and/or Other Disturbance)
Name: Joyce Kay Morris
Address: R.D. 1 Box 61
Proctor, WV. 26055
Name: Jeffery Shade
Address: 326 Main Street
New Martinsville, WV 25156

☐ SURFACE OWNER(s) (Impoundments or Pits)
Name:
Address:

☐ COAL OWNER OR LESSEE
Name: un-declared
Address:

☐ COAL OPERATOR
Name:
Address:

☑ SURFACE OWNER OF WATER WELL AND/OR WATER PURVEYOR(s)
Name: see attached list
Address:

☐ OPERATOR OF ANY NATURAL GAS STORAGE FIELD
Name:
Address:

*Please attach additional forms if necessary

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of Environmental Protection

WW-6A
(8-13)

API NO. 47- 095 -
OPERATOR WELL NO. #4H
Well Pad Name: Morris

4740905202286

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-10(b), notice is hereby given that the undersigned well operator has applied for a permit for well work or for a certificate of approval for the construction of an impoundment or pit.

This Notice Shall Include:
Pursuant to W. Va. Code § 22-6A-10(b), this notice shall include: (1) copies of the application; (2) the erosion and sediment control plan required by section seven of this article; and (3) the well plat.

Pursuant to W. Va. Code § 22-6A-10(f), this notice shall include: (1) a statement of the time limits for filing written comments; (2) who may file written comments; (3) the name and address of the secretary for the purpose of filing the comments and obtaining additional information; and (4) a statement that the persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

Pursuant to W. Va. Code R. § 35-8-5.7.a, the operator shall provide the Well Site Safety Plan to the surface owner and any water purveyor or surface owner subject to notice and water testing as provided in section 15 of this rule.

Pursuant to W. Va. Code R. § 35-8-15.2.c, this notice shall: (1) contain a statement of the surface owner's and water purveyor's right to request sampling and analysis; (2) advise the surface owner and water purveyor of the rebuttable presumption for contamination or deprivation of a fresh water source or supply; advise the surface owner and water purveyor that refusal to allow the operator to conduct a pre-drilling water well test constitutes a method to rebut the presumption of liability; (3) advise the surface owner and water purveyor of his or her independent right to sample and analyze any water supply at his or her own expense; advise the surface owner and water purveyor whether or not the operator will utilize an independent laboratory to analyze any sample; and (4) advise the surface owner and or water purveyor that he or she can obtain from the Chief a list of water testing laboratories in the subject area capable of and qualified to test water supplies in accordance with standard acceptable methods.

Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Location Restrictions
Pursuant to W. Va. Code § 22-6A-12, Wells may not be drilled within two hundred fifty feet measured horizontally from any existing water well or developed spring used for human or domestic animal consumption. The center of well pads may not be located within six hundred twenty-five feet of an occupied dwelling structure, or a building two thousand five hundred square feet or larger used to house or shelter dairy cattle or poultry husbandry. This limitation is applicable to those wells, developed springs, dwellings or agricultural buildings that existed on the date a notice to the surface owner of planned entry for surveying or staking as provided in section ten of this article or a notice of intent to drill a horizontal well as provided in subsection (b), section sixteen of this article was provided, whichever occurs first, and to any dwelling under construction prior to that date. This limitation may be waived by written consent of the surface owner transmitted to the department and recorded in the real property records maintained by the clerk of the county commission for the county in which such property is located. Furthermore, the well operator may be granted a variance by the secretary from these distance restrictions upon submission of a plan which identifies the sufficient measures, facilities or practices to be employed during well site construction, drilling and operations. The variance, if granted, shall include terms and conditions the department requires to ensure the safety and protection of affected persons and property. The terms and conditions may include insurance, bonding and indemnification, as well as technical requirements. (b) No well pad may be prepared or well drilled within one hundred feet measured horizontally from any perennial stream, natural or artificial lake, pond or reservoir, or a wetland, or within three hundred feet of a naturally reproducing trout stream. No well pad may be located within one thousand feet of a surface or ground water intake of a public water supply. The distance from the public water supply as identified by the department shall be measured as follows: (1) For a surface water intake on a lake or reservoir, the distance shall be measured from the boundary of the lake or reservoir. (2) For a surface water intake on a flowing stream, the distance shall be measured from a semicircular radius extending upstream of the surface water intake. (3) For a groundwater source, the distance shall be measured from the wellhead or spring. The department may, in its discretion, waive these distance restrictions upon submission of a plan identifying sufficient measures, facilities or practices to be employed during well site construction, drilling and operations to protect the waters of the state. A waiver, if granted, shall impose any permit conditions as the secretary considers necessary. (c) Notwithstanding the foregoing provisions of this section, nothing contained in this section prevents an operator from conducting the activities permitted or authorized by a Clean Water Act Section 404 permit or other approval from the United States Army Corps of Engineers within any waters of the state or within the restricted areas referenced in this section. (d) The well location restrictions set forth in this section shall not apply to any well on a multiple well pad if at least one of the wells was permitted prior to the effective date of this article. (e) The secretary shall, by December 31, 2012, report to the Legislature on the noise, light, dust and volatile organic compounds generated by the drilling of horizontal wells as they relate to the well location restrictions regarding occupied dwelling structures pursuant to this section. Upon a finding, if any, by the secretary that the well location restrictions regarding occupied dwelling structures are inadequate or otherwise in need of alteration to address the items

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

examined in the study required by this subsection, the secretary shall have the authority to propose for promulgation legislative rules establishing guidelines and procedures regarding reasonable levels of noise, light, dust and volatile organic compounds relating to drilling horizontal wells, including reasonable means of mitigating such factors, if necessary.

Water Well Testing:
Pursuant to West Virginia Code § 22-6A-10(d), notification shall be made, with respect to surface landowners identified in subsection (b) or water purveyors identified in subdivision (5), subsection (b) of this section, of the opportunity for testing their water well. The operator shall provide an analysis to such surface landowner or water purveyor at their request.

Water Testing Laboratories:
Pursuant to West Virginia Code § 22-6A-10(i), persons entitled to notice pursuant to subsection (b) of this section may contact the department to ascertain the names and locations of water testing laboratories in the subject area capable and qualified to test water supplies in accordance with standard accepted methods. In compiling that list of names the department shall consult with the state Bureau for Public Health and local health departments. A surface owner and water purveyor has an independent right to sample and analyze any water supply at his or her own expense. The laboratory utilized by the operator shall be approved by the agency as being certified and capable of performing sample analyses in accordance with this section.

Rebuttable Presumption for Contamination or Deprivation of a Fresh Water Source or Supply:

W. Va. Code § 22-6A-18 requires that (b) unless rebutted by one of the defenses established in subsection (c) of this section, in any action for contamination or deprivation of a fresh water source or supply within one thousand five hundred feet of the center of the well pad for horizontal well, there is a rebuttable presumption that the drilling and the oil or gas well or either was the proximate cause of the contamination or deprivation of the fresh water source or supply. (c) In order to rebut the presumption of liability established in subsection (b) of this section, the operator must prove by a preponderance of the evidence one of the following defenses: (1) The pollution existed prior to the drilling or alteration activity as determined by a predrilling or prealteration water well test. (2) The landowner or water purveyor refused to allow the operator access to the property to conduct a predrilling or prealteration water well test. (3) The water supply is not within one thousand five hundred feet of the well. (4) The pollution occurred more than six months after completion of drilling or alteration activities. (5) The pollution occurred as the result of some cause other than the drilling or alteration activity. (d) Any operator electing to preserve its defenses under subdivision (1), subsection (c) of this section shall retain the services of an independent certified laboratory to conduct the predrilling or prealteration water well test. A copy of the results of the test shall be submitted to the department and the surface owner or water purveyor in a manner prescribed by the secretary. (e) Any operator shall replace the water supply of an owner of interest in real property who obtains all or part of that owner's supply of water for domestic, agricultural, industrial or other legitimate use from an underground or surface source with a comparable water supply where the secretary determines that the water supply has been affected by contamination, diminution or interruption proximately caused by the oil or gas operation, unless waived in writing by that owner. (f) The secretary may order the operator conducting the oil or gas operation to: (1) Provide an emergency drinking water supply within twenty-four hours; (2) Provide temporary water supply within seventy-two hours; (3) Within thirty days begin activities to establish a permanent water supply or submit a proposal to the secretary outlining the measures and timetables to be used in establishing a permanent supply. The total time in providing a permanent water supply may not exceed two years. If the operator demonstrates that providing a permanent replacement water supply cannot be completed within two years, the secretary may extend the time frame on case-by-case basis; and (4) Pay all reasonable costs incurred by the real property owner in securing a water supply. (g) A person as described in subsection (b) of this section aggrieved under the provisions of subsections (b), (e) or (f) of this section may seek relief in court... (i) Notwithstanding the denial of the operator of responsibility for the damage to the real property owner's water supply or the status of any appeal on determination of liability for the damage to the real property owner's water supply, the operator may not discontinue providing the required water service until authorized to do so by the secretary or a court of competent jurisdiction.

Written Comment:
Pursuant to West Virginia Code § 22-6A-11(a), all persons described in subsection (b), section ten of this article may file written comments with the secretary as to the location or construction of the applicant's proposed well work within thirty days after the application is filed with the secretary. All persons described in West Virginia Code § 22-6A-10(b) may file written comments as to the location or construction of the applicant's proposed well work to the Secretary at:

Chief, Office of Oil and Gas
Department of Environmental Protection
601 57th St. SE
Charleston, WV 25304
(304) 926-0450

Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water. **NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT.**

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- 095 -
OPERATOR WELL NO. #4H
Well Pad Name: Morris

Time Limits and Methods for Filing Comments.

The law requires these materials to be served on or before the date the operator files its Application. You have **THIRTY (30) DAYS** after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Pursuant to West Virginia Code § 22-6A-11(c)(2), Any objections of the affected coal operators and coal seam owners and lessees shall be addressed through the processes and procedures that exist under sections fifteen, seventeen and forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article. The written comments filed by the parties entitled to notice under subdivisions (1), (2), (4), (5) and (6), subsection (b), section ten of this article shall be considered by the secretary in the permit issuance process, but the parties are not entitled to participate in the processes and proceedings that exist under sections fifteen, seventeen or forty, article six of this chapter, as applicable and as incorporated into this article by section five of this article.

4709502288

Comment Requirements

Your comments must be in writing and include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

Disclaimer: All comments received will be placed on our web site http://www.dep.wv.gov/oil-and-gas/Horizontal-Permits/Pages/default.aspx and the applicant will automatically be forwarded an email notice that such comments have been submitted. The applicant will be expected to provide a response to comments submitted by any surface owner, water purveyor or natural gas storage operator noticed within the application.

Permit Denial or Condition

The Chief has the power to deny or condition a well work permit. Pursuant to West Virginia Code § 22-6A-8(d), the permit may not be issued or be conditioned, including conditions with respect to the location of the well and access roads prior to issuance if the director determines that:

(1) The proposed well work will constitute a hazard to the safety of persons;
(2) The plan for soil erosion and sediment control is not adequate or effective;
(3) Damage would occur to publicly owned lands or resources; or
(4) The proposed well work fails to protect fresh water sources or supplies.

A permit may also be denied under West Virginia Code § 22-6A-7(k), the secretary shall deny the issuance of a permit if the secretary determines that the applicant has committed a substantial violation of a previously issued permit for a horizontal well, including the applicable erosion and sediment control plan associated with the previously issued permit, or a substantial violation of one or more of the rules promulgated under this article, and in each instance has failed to abate or seek review of the violation within the time prescribed by the secretary pursuant to the provisions of subdivisions (1) and (2), subsection (a), section five of this article and the rules promulgated hereunder, which time may not be unreasonable.

Pursuant to West Virginia Code § 22-6A-10(g), any person entitled to submit written comments to the secretary pursuant to subsection (a), section eleven of this article, shall also be entitled to receive from the secretary a copy of the permit as issued or a copy of the order modifying or denying the permit if the person requests receipt of them as a part of the written comments submitted concerning the permit application. Such persons may request, at the time of submitting written comments, notice of the permit decision and a list of persons qualified to test water.

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

WW-6A
(8-13)

API NO. 47- 095 -
OPERATOR WELL NO. #4H
Well Pad Name: Morris

Notice is hereby given by:

Well Operator: Stone Energy Corporation
Telephone: (304) 225-1600
Email: CutrightRL@StoneEnergy.com

Address: 1300 Fort Pierpont Drive - Suite 201
Morgantown, WV 26508
Facsimile: (337) 521-9911

Oil and Gas Privacy Notice:

The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

OFFICIAL SEAL
NOTARY PUBLIC - STATE OF WEST VIRGINIA
Danielle L Snoderly
445 Davys Run Road
Fairmont, WV 26554
My Commission Expires May 18, 2021

Subscribed and sworn before me this 2nd day of July, 2015.

Danielle L. Snoderly Notary Public

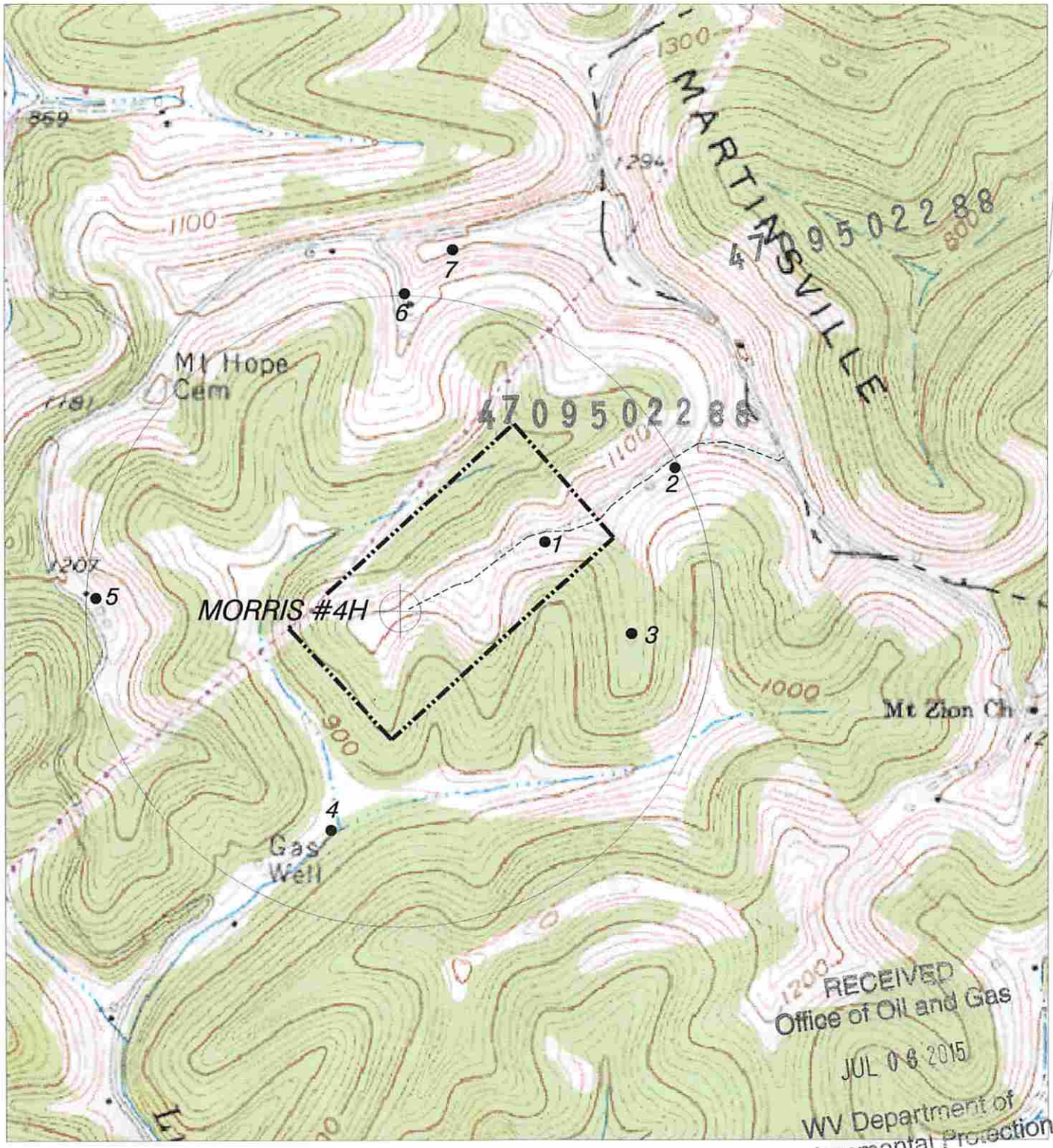
My Commission Expires 5/18/2021

4709502288

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

Form W-9

Stone Energy Corporation Morris #4H Water



HUPP Surveying & Mapping
P.O. BOX 647 GRANTSVILLE, WV 26147
PH: (304)354-7035 E-MAIL: hupp@frontiernet.net

1" = 1000'
Porters Falls 7.5'

Stone Energy Corp.
P.O. Box 52807
Lafayette, LA 70508

Mailings of Applications to Surface owners, Mineral Owners & Water Purveyors:

Geremy Lauderman
101 E. Madison Street
Paden City, WV 26159

Walter Witschey
RR 2 Box 93
New Martinsville, WV 26155

John Powell
525 S. Third Street
Paden City, WV 26159

JCW Inc.
525 S. Third Street
Paden City, WV 26159

Jeffrey Shade
326 Main Street
New Martinsville, WV 26155

John & Christel Steele
RR1 Box 145
New Martinsville, WV 26155

Joyce Kay Morris
RR1 Box 61
Proctor, WV 26055

Witschey Realty
William Witschey
155 North Street
New Martinsville, WV 26155

4709502288

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

Additional Surface Owner's for Disturbance of Roads:

Witschey Realty
William Witschey
155 North Street
New Martinsville, WV. 26155

4709502288

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

HUPP Surveying & Mapping

P.O. BOX 647
GRANTSVILLE, WV 26147
(304) 354-7035 hupp@frontiernet.net FAX: (304) 354-6548

June 16, 2015

RE: Water Samples for Morris #4H

There appears to be seven (7) potable water sources within 2,200' of Morris #4H, therefore tests should be offered and samples taken as required.

47095022 88

1. Bob & Kay Morris
   RR 1 Box 61
   Proctor, WV 26055
   Tax Map 3 Parcels 2, 3, 5, 6, 7, 11

2. Jeffrey Shade
   326 Main St.
   New Martinsville, WV 26155
   Tax Map 3 Parcel 7.2

3. JCW Inc.
   525 S Third Ave.
   Paden City, WV 26159
   Tax Map 3 Parcels 15 & 16

4. John Powell
   525 S 3rd Ave.
   Paden City, WV 26159
   Tax Map 3 Parcel 21.1

5. Walter Witschey
   RR 1 Box 93A
   New Martinsville, WV 26155
   Tax Map 3 Parcel 4

6. Geremy Lauderman
   Rt. 1 Box 146
   New Martinsville, WV 26155
   Tax Map 1 Parcel 10

7. John & Christel Steele
   RR 1 Box 145
   New Martinsville, WV 26155
   Tax Map 1 Parcel 13

RECEIVED
Office of Oil and Gas
JUL 06 '05
WV Department of
Environmental Protection

WW-6A3
(1/12)

Operator Well No. #4H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF ENTRY FOR PLAT SURVEY

Notice Time Requirement: Notice shall be provided at least **SEVEN (7)** days but no more than **FORTY-FIVE (45)** days prior to entry

Date of Notice: 03/21/2012 **Date of Planned Entry:** 03/29/2012

Delivery method pursuant to West Virginia Code § 22-6A-10a

4709502289

☐ PERSONAL SERVICE ☒ REGISTERED MAIL ☐ METHOD OF DELIVERY THAT REQUIRES A RECEIPT OR SIGNATURE CONFIRMATION

Pursuant to West Virginia Code § 22-6A-10(a), Prior to filing a permit application, the operator shall provide notice of planned entry on to the surface tract to conduct any plat surveys required pursuant to this article. Such notice shall be provided at least seven days but no more than forty-five days prior to such entry to: (1) The surface owner of such tract; (2) to any owner or lessee of coal seams beneath such tract that has filed a declaration pursuant to section thirty-six, article six, chapter twenty-two of this code; and (3) any owner of minerals underlying such tract in the county tax records. The notice shall include a statement that copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, which statement shall include contact information, including the address for a web page on the Secretary's web site, to enable the surface owner to obtain copies from the secretary.

Notice is hereby provided to:

☒ SURFACE OWNER(s)
Name: Joyce Kay Morris
Address: R.D. 1, Box 61
Proctor, WV 26055
Name:
Address:
Name:
Address:

☐ COAL OWNER OR LESSEE
Name: Un-Declared
Address:

☒ MINERAL OWNER(s)
Name: Joyce Kay Morris
Address: R.D. 1, Box 61
Proctor, WV 26055

*please attach additional forms if necessary

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-10(a), notice is hereby given that the undersigned well operator is planning entry to conduct a plat survey on the tract of land as follows:

State:	West Virginia	Approx. Latitude & Longitude:	4,381,414 / 512,556
County:	Tyler	Public Road Access:	Tyler County Route 28/1
District:	Ellsworth	Watershed:	Lynncamp Creek
Quadrangle:	Porters Falls	Generally used farm name:	Morris, Bob and Kay

Copies of the state Erosion and Sediment Control Manual and the statutes and rules related to oil and gas exploration and production may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450). Copies of such documents or additional information related to horizontal drilling may be obtained from the Secretary by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Notice is hereby given by:

Well Operator:	Stone Energy Corporation	Address:	1300 Fort Pierpont Drive - Suite 201
Telephone:	(304) 225-1789		Morgantown, WV 26508
Email:	CutrightRL@StoneEnergy.com	Facsimile:	(337) 521-9911

Oil and Gas Privacy Notice:
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

6000 Hampton Center, Suite B
Morgantown, WV 26505-1748
Telephone: (304) 599-1457
Fax: (337) 291-7787

March 21, 2012

Dear Joyce Kay Morris;

My name is Tim McGregor and I am the Land Coordinator for Stone Energy Corporation.

Stone Energy Corporation is making plans for our 2012/2013 drilling program and your surface has been chosen as a possible drilling site. Our company will be sending out our field review team to start evaluating our future sites starting in the next couple of weeks. We do not want to come on your surface without proper notification and we are also asking if you would like to be in attendance.

Mr. Carl Bailes will be leading our team to make the assessment of your surface. You can contact Carl directly at the following number (304) 304-276-9535 or please feel free to contact me at any time.

We are planning on visiting your location on March 29, 2012.

If you have any questions or concerns please contact Danielle Snoderly Administrative Assistant at (304) 225-1775 in our land department.

Sincerely,

Tim McGregor
Land Coordinator
Stone Energy Corporation
6000 Hampton Center Suite E
Morgantown WV 26505
304-225-1788
mcgregortp@stoneenergy.com

4709502283

RECEIVED
Office of Oil and Gas

JUL 06 2015

WV Department of
Environmental Protection

WW-6A5
(1/12)

Operator Well No. #4H

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF PLANNED OPERATION

Notice Time Requirement: notice shall be provided no later than the **filing date of permit application.**
Date of Notice: 07/02/2015 **Date Permit Application Filed:** 07/03/2015

Delivery method pursuant to West Virginia Code § 22-6A-16(c)

☒ CERTIFIED MAIL RETURN RECEIPT REQUESTED ☐ HAND DELIVERY

4709502

Pursuant to W. Va. Code § 22-6A-16(c), no later than the date for filing the permit application, an operator shall, by certified mail return receipt requested or hand delivery, give the surface owner whose land will be used for the drilling of a horizontal well notice of the planned operation. The notice required by this subsection shall include: (1) A copy of this code section; (2) The information required to be provided by subsection (b), section ten of this article to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. (d) The notices required by this section shall be given to the surface owner at the address listed in the records of the sheriff at the time of notice.

Notice is hereby provided to the SURFACE OWNER(s)
(at the address listed in the records of the sheriff at the time of notice):

Name: Joyce Kay Morris
Address: R.D. 1, Box 61
Proctor, WV 26055

Name:
Address:

Notice is hereby given:
Pursuant to West Virginia Code § 22-6A-16(c), notice is hereby given that the undersigned well operator has developed a planned operation on the surface owner's land for the purpose of drilling a horizontal well on the tract of land as follows:

State: West Virginia
County: Tyler
District: Ellsworth
Quadrangle: Porters Falls
Watershed: Lynncamp Creek

UTM NAD 83 Easting: 512,556
Northing: 4,381,414
Public Road Access: Tyler County Route 28/1
Generally used farm name: Morris, Bob and Kay

This Notice Shall Include:
Pursuant to West Virginia Code § 22-6A-16(c), this notice shall include: (1)A copy of this code section; (2) The information required to be provided by **W. Va. Code § 22-6A-10(b)** to a surface owner whose land will be used in conjunction with the drilling of a horizontal well; and (3) A proposed surface use and compensation agreement containing an offer of compensation for damages to the surface affected by oil and gas operations to the extent the damages are compensable under article six-b of this chapter. Additional information related to horizontal drilling may be obtained from the Secretary, at the WV Department of Environmental Protection headquarters, located at 601 57th Street, SE, Charleston, WV 25304 (304-926-0450) or by visiting www.dep.wv.gov/oil-and-gas/pages/default.aspx.

Well Operator: Stone Energy Corporation
Telephone: (304) 225-1789
Email: CutrightRL@StoneEnergy.com

Address: 1300 Fort Pierpont Drive - Suite 201
Morgantown, WV 26508
Facsimile: (337) 521-9911

Oil and Gas Privacy Notice:
The Office of Oil and Gas processes your personal information, such as name, address and telephone number, as part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use or your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • (304) 558-3505

Earl Ray Tomblin
Governor

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

June 21, 2013

James A. Martin, Chief
Office of Oil and Gas
Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

4709502288

Subject: DOH Permit for the Morris Pad, Tyler County

Morris 1H	Morris 2H
Morris 3H	Morris 4H
Morris 5H	Morris 6H
Morris 7H	Morris 8H

Dear Dr. Martin,

This well site will be accessed from a permit to be applied for and approved prior to the start of pad construction by Stone Energy Corporation for access to the State Road for a well site located off of Tyler County Route 32/1 SLS.

The operator has signed a STATEWIDE OIL AND GAS ROAD MAINTENANCE BONDING AGREEMENT and provided the required Bond. This operator is currently in compliance with the DOH OIL AND GAS POLICY dated January 3, 2012.

Very Truly Yours,

Gary K. Clayton

Gary K. Clayton, P.E.
Regional Maintenance Engineer
Central Office O&G Coordinator

Cc: Tim McGregor
Stone Energy Corporation
CH, CHH, OM, D-6
File

RECEIVED
Office of Oil and Gas

JUL 06 2015

WV Department of
Environmental Protection

E.E.O./AFFIRMATIVE ACTION EMPLOYER

STONE ENERGY CORPORATION

Addendum for

Planned Additives to be Used in Fracturing or Stimulations

Listed below are the chemicals used in addition to water and sand (CAS-No 14808-60-7) and their respective quantities for slick water fracturing;

- 0.5 gal/thousand gallons of water – Friction Reducer (CAS-No 7783-20-2)
- 0.25 gal/thousand gallons of water – Bacteria Control (CAS-No 11-30-8)
- 0.25 gal/thousand gallons of water – Clay Stabilizer (CAS- No 75-57-0)
- 0.75 gal/thousand gallons of water – Surfactant (CAS-No Proprietary)
- 0.25 gal/thousand gallons of water – Scale Inhibitor (CAS-No 7601-54-9 & 107-21-1)
- 2000 gal of 15% HCl (CAS-No 7647-01-0) per stage with/ 2 gal/thousand gallons of acid Corrosion Inhibitor (CAS-No 67-56-1, 107-19-7, & Propretary) and 6 pints/thousand gallons of acid – Iron Stabilizer (CAS-No 6381-77-7)
- A 15 lb. Linear Gel and breaker is sometimes used during a stage but the exact amount is not known until the stimulation is in progress (CAS-No Proprietary & 7727-54-0)

4709502288

RECEIVED
Office of Oil and Gas

JUL 06 2015

WV Department of
Environmental Protection

No.	Date	Revision
1	3-21-14	UPDATED GRADING, CONTROLS, QUANTITIES, AND NOTES TO REFLECT PAD EXTENSION; CHANGED CENTER PAD COORDINATES
2	4-11-14	UPDATED QUANTITIES TO REFLECT CHANGES MADE TO PLANS
3	4-24-14	UPDATED GRADING, CONTROLS, QUANTITIES, AND NOTES TO REFLECT PAD EXTENSION; CHANGED CENTER PAD COORDINATES
4	5-22-14	UPDATED QUANTITIES TO REFLECT CHANGES MADE TO PLANS

APPROVED
WVDEP OOG
SAY 7/11/2014

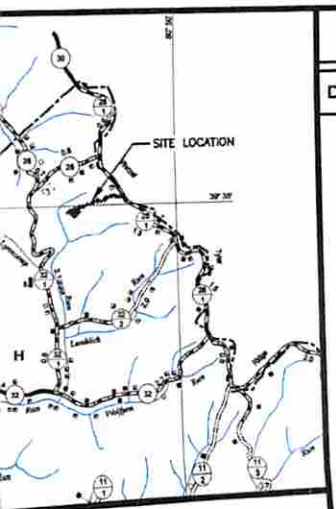
Y CORPORATION
STRUCTION PLANS
WELL PAD
LER COUNTY, WEST VIRGINIA

ewed at: Q\OIL GAS\SAY FILES\REVIEWS

MDG 6/24/15

REVISED ISSUE DATE 5/22/14

CONSTRUCTION BID DOCUMENTS



ITY MAP
ON OF HIGHWAYS
NTY HIGHWAY MAP
1" = 1 MILE

DRAWING INDEX

DRAWING NO.	TITLE
1	INDEX AND COVER SHEET
2	GENERAL NOTES/SEQUENCE OF CONSTRUCTION
3	EXISTING CONDITIONS
4	OVERALL SITE PLAN
5	DETAILED SITE PLAN - 1 OF 3
6	DETAILED SITE PLAN - 2 OF 3
7	DETAILED SITE PLAN - 3 OF 3
8	ACCESS ROAD PROFILE
9	ACCESS ROAD CROSS SECTIONS
10	WELL PAD PROFILE AND CROSS SECTIONS
11 - 13	MISCELLANEOUS DETAILS
14	RECLAMATION PLAN

POTESTA & ASSOCIATES, INC.
ENGINEERS AND ENVIRONMENTAL CONSULTANTS
125 Lakeview Drive, Morgantown, WV 26508
TEL: (304) 225-2245 FAX: (304) 225-2246
E-Mail Address: potesta@potesta.com

DANA L. BURNS REGISTERED PROFESSIONAL ENGINEER STATE OF WEST VIRGINIA
SEAL

RECEIVED
Office of Oil and Gas
JUL 06 2015
WV Department of
Environmental Protection

-COV-DETAILS
CAD File No.
SAB/RGL
Drawn
CAG
Checked
DBS
Approved
NOTED
Scale:
MAY 2014
Date:
0102-13-0209
Project No.

POTESTA & ASSOCIATES, INC.
ENGINEERS AND ENVIRONMENTAL CONSULTANTS
125 Lakeview Drive, Morgantown, WV 26508
TEL: (304) 225-2245 FAX: (304) 225-2246
E-Mail Address: potesta@potesta.com

POTESTA

Client
STONE ENERGY CORPORATION
6000 HAMPTON CENTER, SUITE B
MORGANTOWN, WV 26505-1748

Title
INDEX AND COVER SHEET
MORRIS WELL PAD
TYLER COUNTY, WEST VIRGINIA

Drawing No.
1