

Well Operator's Report of Well Work



Well Number: BLAKE 2H (519171)

API: 47 - 103 - 02911

Submission:  Initial  Amended

Notes: Following is a WR-35, amended to include a FracFocus Disclosure, which was not included with the WR-35 and attachments that were submitted on 10/18/2018.

In addition to this most recently amended version of the WR-35, this submission features a copy of all items sent as part of the 10/18/2018 mailing, including: The 1st Amended WR-35, the "Stimulated Stages" & "Perforations" attachments, a list of Formations & depths, the Wellpath & Survey Reports, the "As-Drilled" Plat, and the initial WR-35 prepared and submitted by Stone Energy Corp.

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

API 47-103-02911 County WETZEL District MAGNOLIA  
Quad NEW MARTINSVILLE 7.5' Pad Name BLAKE (NMA12) Field/Pool Name N/A  
Farm name GARY LEMONS Well Number BLAKE 2H (519171)  
Operator (as registered with the OOG) EQT Production Company  
Address 625 LIBERTY AVENUE, SUITE 1700 City PITTSBURGH State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,388,553.669 Easting 517,290.640  
Landing Point of Curve Northing 4,388,652.156 Easting 517,376.296  
Bottom Hole Northing 4,390,044.817 Easting 516,479.235

Elevation (ft) 1298 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) Synthetic Based Mud 13.2 ppg, aliphatic based non-aqueous drilling fluid, barium sulfate, calcium chloride, organophylic clay, quaternary ammonium clay, gilsonite, blended emulsifier, wetting agent, blended graphite, hydrated lime, calcium carbonate, ground walnut shells, fibrous cellulose.

Date permit issued 05/18/2018 Date drilling commenced 06/11/2018 Date drilling ceased 06/14/2018  
Date completion activities began 06/25/2018 Date completion activities ceased 07/20/2018  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A RECEIVED Office of Oil and Gas

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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 90 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1027 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:

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DH

WR-35  
Rev. 8/23/13

API 47-103 - 02911 Farm name GARY LEMONS Well number BLAKE 2H (519171)

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							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	12,923'	NEW	P-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has calculated TOC of 3395' MD, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	Class A	1885	15.6	1.19	2243	3395'	8+
Tubing							

Drillers TD (ft) 12,927' MD      Loggers TD (ft) N/A  
 Deepest formation penetrated MARCELLUS      Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5634' MD

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 \_\_\_\_\_

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PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 4189'

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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 - 02911 Farm name GARY LEMONS Well number BLAKE 2H (519171)

PRODUCING FORMATION(S)	DEPTHS		
<u>Marcellus</u>	<u>6,851</u>	<u>TVD</u>	<u>7,359</u> MD
_____	_____	_____	_____
_____	_____	_____	_____

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump

SHUT-IN PRESSURE Surface 945 psi Bottom Hole N/A psi DURATION OF TEST 138 hrs

OPEN FLOW Gas 4,798 mcfpd Oil N/A bpd NGL 161 bpd Water 2,050 bpd GAS MEASURED BY  Estimated  Orifice  Pilot

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

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling  
Address 2640 Reach Road City Williamsport State PA Zip 17701

Logging Company Baker Hughes  
Address 400 Technology Drive - Suite 100 City Cannonsburg State PA Zip 15317

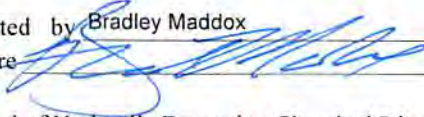
Cementing Company BJ Services, LLC  
Address 4000 Town Center Blvd, Suite 210 City Cannonsburg State PA Zip 15317

Stimulating Company ProFrac  
Address 777 Main Street, Suite 3900 City FT. Worth State TX Zip 76102

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Please insert additional pages as applicable.

Completed by Bradley Maddox Telephone (412) 395-7053  
Signature  Title Director - Completions Date 10/24/2018

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

WR-35  
Rev. 8/23/13

API 47- 103 - 02911 Farm name GARY LEMONS Well number BLAKE 2H (519171)

Drilling Contractor \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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# Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	6/25/2018
Job End Date:	7/20/2018
State:	West Virginia
County:	Wetzel
API Number:	47-103-02911-00-00
Operator Name:	EQT Production
Well Name and Number:	519171
Latitude:	39.64651900
Longitude:	-80.79865100
Datum:	NAD83
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	6,851
Total Base Water Volume (gal):	9,814,976
Total Base Non Water Volume:	0



## 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
Water	ProFrac	Carrier/Base Fluid					
			Water	7732-18-5	100.00000	86.96578	None
ProBreak 100	ProFrac	Colling Agent					
				Listed Below			

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ProHib 100	ProFrac	Acid Corrosion Inhibitor					
				Listed Below			
ProVis 4.0	ProFrac	Gel Breaker					
				Listed Below			
Hydrochloric Acid (15%)	ProFrac	Acidizing					
				Listed Below			
ProFe 105	ProFrac	Iron Control					
				Listed Below			
Sand (Proppant)	ProFrac	Proppant					
				Listed Below			
Bio Matar 123	Silverback Chemical, LLC	Biocide					
				Listed Below			
Silver SI - 800	Silverback Chemical, LLC	Anti-Scalant					
				Listed Below			
Silver FR-931	Silverback Chemical, LLC	Friction Reducer					
				Listed Below			
Other Chemical (s)	Listed Above	See Trade Name (s) List					

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				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Silica Substrate	14808-60-7	100.00000	12.64972	None
			Hydrochloric Acid	7647-01-0	15.00000	0.04485	None
			Petroleum Distillates, Hydrotreated Light Naphthenic	64742-53-6	60.00000	0.03757	None
			Proprietary Polymers	Proprietary	60.00000	0.03757	
			Proprietary Polymers	Proprietary	60.00000	0.03757	None
			Petroleum Distillates, Hydrotreated Light Naphthenic	64742-53-6	60.00000	0.03757	
			Non-Hazardous Substances	Proprietary	90.00000	0.01433	
			Non-Hazardous Substances	Proprietary	90.00000	0.01433	None
			Glutaraldehyde	111-30-8	20.00000	0.00318	None
			Glutaraldehyde	111-30-8	20.00000	0.00318	
			Methanol	67-56-1	90.00000	0.00199	None
			Hydrtreated Light Distillate(Petroleum)	64742-47-8	65.00000	0.00138	None
			Gum Guar	9000-30-0	50.00000	0.00106	None
			Polycarboxylic Acid Salt Mixture	Proprietary	40.00000	0.00101	None
			Alkyl Dimethyl Benzyl Ammonium Chloride	68391-01-5	3.00000	0.00048	
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00048	
			Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.00000	0.00048	None
			Alkyl Dimethyl Benzyl Ammonium Chloride	68391-01-5	3.00000	0.00048	None
			Alcohols, C7-9-ISO, C8 Rich	68526-83-0	5.00000	0.00011	
			Isopropanol	67-63-0	5.00000	0.00011	None
			Xylene	1330-20-7	5.00000	0.00011	None

			Alcohols, C7-9-ISO, C8 Rich	68526-83-0	5.00000	0.00011	None
			Imidazoline	61790-69-0	5.00000	0.00011	
			Xylene	1330-20-7	5.00000	0.00011	
			Imidazoline	61790-69-0	5.00000	0.00011	None
			Propargyl Alcohol	107-19-7	5.00000	0.00011	None
			Citric Acid	77-92-9	100.00000	0.00009	
			Citric Acid	77-92-9	100.00000	0.00009	None
			Ammonium Persulfate	7727-54-0	100.00000	0.00003	None
			Ethylbenzene	100-41-4	1.00000	0.00002	None
			Ethylbenzene	100-41-4	1.00000	0.00002	

\* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water

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

\*\*\* If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.

Ingredient information for chemicals subject to 29 CFR 1910.1200(l) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

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Well Operator's Report of Well Work



Well Number: BLAKE 2H (519171)

API: 47 - 103 - 02911

Submission:  Initial  Amended

Notes: Please note that Stone Energy Corp. was responsible for the Top Set drilling operations on this well & submitted an initial WR-35 (Attached) after those operations were concluded. EQT performed the lateral production drilling operations and subsequent stimulation operations detailed in this amended Report. Please further note that stages 10, 19 & 20 required re-perforation.

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

API 47-103-02911 County WETZEL District MAGNOLIA  
Quad NEW MARTINSVILLE 7.5' Pad Name BLAKE (NMA12) Field/Pool Name N/A  
Farm name GARY LEMONS Well Number BLAKE 2H (519171)  
Operator (as registered with the OOG) EQT Production Company  
Address 625 LIBERTY AVENUE, SUITE 1700 City PITTSBURGH State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,388,553.669 Easting 517,290.640  
Landing Point of Curve Northing 4,388,652.156 Easting 517,376.286  
Bottom Hole Northing 4,390,044.817 Easting 516,479.235

Elevation (ft) 1298 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) Synthetic Based Mud 13.2 ppg, aliphatic based non-aqueous drilling fluid, barium sulfate, calcium chloride, organophilic clay, quaternary ammonium clay, gilsonite, blended emulsifier, wetting agent, blended graphite, hydrated lime, calcium carbonate, ground walnut shells, fibrous cellulose.

Date permit issued 05/18/2018 Date drilling commenced 06/11/2018 Date drilling ceased 06/14/2018  
Date completion activities began 06/25/2018 Date completion activities ceased 07/20/2018  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

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 90 Open mine(s) (Y/N) depths N **OCT 25 2018**  
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N WV Department of  
Coal depth(s) ft 1027 Cavern(s) encountered (Y/N) depths N Environmental Protection  
Is coal being mined in area (Y/N) N

Reviewed by:

WR-35  
Rev. 8/23/13

API 47-103 - 02911 Farm name GARY LEMONS Well number BLAKE 2H (519171)

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							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	12,923'	NEW	P-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has calculated TOC of 3395' MD, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	Class A	1885	15.6	1.19	2243	3395'	8+
Tubing							

Drillers TD (ft) 12,927 MD      Loggers TD (ft) N/A  
 Deepest formation penetrated MARCELLUS      Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5634' MD

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 \_\_\_\_\_

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PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 4189'

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WAS WELL COMPLETED AS SHOT HOLE     Yes     No      DETAILS \_\_\_\_\_

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WAS WELL COMPLETED OPEN HOLE?     Yes     No      DETAILS \_\_\_\_\_

WERE TRACERS USED     Yes     No      TYPE OF TRACER(S) USED \_\_\_\_\_







11/16/2018

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Rev. 8/23/13

API 47- 103 - 02911 Farm name GARY LEMONS Well number BLAKE 2H (519171)

Drilling Contractor \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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11/16/2018

<b>Final Formations Well # 519171 (Blake 2H) API # 47-103-02911</b>				
<b>Formation Name</b>	<b>Drill Top MD (ftKB)</b>	<b>Drill Top (TVD) (ftKB)</b>	<b>Drill Btm MD (ftKB)</b>	<b>Drill Btm (TVD) (ftKB)</b>
SAND/SHALE	3060	3059	6807	6584
SONYEA	6807	6584	6929	6669
MIDDLESEX	6929	6669	6968	6694
GENESEE	6968	6694	7066	6750
GENESEO	7066	6750	7110	6773
TULLY	7110	6773	7156	6795
HAMILTON	7156	6795	7359	6851
MARCELLUS	7359	6851	12927	6863

WR-35  
Rev. 8/23/13

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

API 47 - 103 - 02911 County Wetzel District Magnolia  
Quad New Martinsville Pad Name Blake Field/Pool Name Mary  
Farm name Lemons, Gary 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 4,388,554 Easting 517,291  
Landing Point of Curve Northing TBD - Only Top Hole Drilled Easting TBD - Only Top Hole Drilled  
Bottom Hole Northing TBD - Only Top Hole Drilled Easting TBD - Only Top Hole Drilled

Elevation (ft) 1293 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)  
Air Drilling additives: air, fresh water, soda ash, KCl, clay guard, PAC, foamer, corrosion inhibitor

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Date permit issued 9/25/2013 Date drilling commenced 2/8/2014 Date drilling ceased 2/13/2014  
Date completion activities began Not yet completed Date completion activities ceased  
Verbal plugging (Y/N) N Date permission granted Granted by

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 90 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1027 Cavern(s) encountered (Y/N) depths N

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

**APPROVED**

NAME: [Signature]  
DATE: 5-25-17

Reviewed by: [Signature]

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Environmental Protection







WR-35  
Rev. 8/23/13

API 47- 103 - 02911 Farm name Lemons, Gary Well number #2H

PRODUCING FORMATION(S)	DEPTHS
Not yet completed	TVD MD
Not yet producing	

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump  
 SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs  
 OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  
 Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
Sandstone & Shale	0	1027	0	1027	Fresh water @ 90'
Coal	1027	1034	1027	1034	No salt water reported
Sandstone & Shale	1027	2216	1027	2216	
Big Lime	2216	2331	2216	2331	
Big Injun	2331	2416	2331	2416	
Sandstone & Shale	2416	2786	2416	2786	
Berea Sandstone	2786	2795	2786	2795	
Shale	2795	3036	2795	3036	
Gordon	3036	3060	3036	3060	
Undiff Devonian Snale	3060	5699	3060	5721	

Please insert additional pages as applicable.

Drilling Contractor Highlands (top hole)  
Address 900 Virginia Street - East City Charleston State WV Zip 25301

Logging Company Scientific Drilling (top hole)  
Address 124 Vista Drive City Charleroi State PA Zip 15022

Cementing Company Halliburton (top hole)  
Address 121 Champion Way City Canonsburg State PA Zip 15317

Stimulating Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by Greg Zofchak Telephone 304-225-1600  
Signature *[Signature]* Title Drilling Engineer Date 3/6/2017

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

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**519171 47-103-02911-00-00 Perforations**

<b>Stage Number</b>	<b>Perforation Date</b>	<b>Top Perf Depth (ftKB)</b>	<b>Bottom Perf Depth (ftKB)</b>	<b>Number of Shots</b>	<b>Formation</b>
<b>Initiation Sleeve</b>	6/20/2018	12,806	12,923	10	MARCELLUS
<b>2</b>	6/25/2018	12,605	12,767	40	MARCELLUS
<b>3</b>	6/27/2018	12,405	12,567	40	MARCELLUS
<b>4</b>	6/27/2018	12,205	12,367	40	MARCELLUS
<b>5</b>	6/30/2018	12,005	12,167	40	MARCELLUS
<b>6</b>	6/30/2018	11,805	11,967	40	MARCELLUS
<b>7</b>	7/1/2018	11,605	11,767	40	MARCELLUS
<b>8</b>	7/2/2018	11,405	11,567	40	MARCELLUS
<b>9</b>	7/3/2018	11,205	11,367	40	MARCELLUS
<b>10</b>	7/5/2018	10,985	11,167	40	MARCELLUS
<b>11</b>	7/4/2018	10,785	10,947	40	MARCELLUS
<b>12</b>	7/5/2018	10,585	10,747	40	MARCELLUS
<b>13</b>	7/6/2018	10,385	10,547	40	MARCELLUS
<b>14</b>	7/6/2018	10,185	10,347	40	MARCELLUS
<b>15</b>	7/7/2018	9,985	10,147	40	MARCELLUS
<b>16</b>	7/7/2018	9,785	9,947	40	MARCELLUS
<b>17</b>	7/7/2018	9,585	9,747	40	MARCELLUS
<b>18</b>	7/8/2018	9,385	9,547	40	MARCELLUS
<b>19</b>	7/10/2018	9,165	9,347	40	MARCELLUS
<b>20</b>	7/12/2018	8,965	9,127	40	MARCELLUS
<b>21</b>	7/11/2018	8,765	8,927	24	MARCELLUS
<b>22</b>	7/13/2018	8,565	8,727	40	MARCELLUS
<b>23</b>	7/13/2018	8,365	8,527	40	MARCELLUS
<b>24</b>	7/14/2018	8,165	8,327	40	MARCELLUS
<b>25</b>	7/14/2018	7,965	8,127	40	MARCELLUS
<b>26</b>	7/15/2018	7,765	7,927	40	MARCELLUS
<b>27</b>	7/16/2018	7,565	7,727	40	MARCELLUS
<b>28</b>	7/17/2018	7,365	7,527	40	MARCELLUS

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**519171 47-103-02911-00-00 - Stimulated Stages**

Stage Number	Stimulation 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	6/25/2018	81	8,324.00	9,276.00	4,471.00	270,780.00	5,315.40	0
2	6/26/2018	90	7,672.00	8,181.00	3,288.00	360,211.00	7,142.16	0
3	6/27/2018	95	7,920.00	9,092.00	3,316.00	450,864.00	7,783.90	0
4	6/30/2018	93	8,425.00	9,449.00	3,352.00	451,550.00	8,103.70	0
5	6/30/2018	94	8,111.00	8,607.00	3,703.00	451,660.00	7,905.50	0
6	7/1/2018	91	8,095.00	9,529.00	3,550.00	452,380.00	7,666.60	0
7	7/2/2018	95	8,169.00	8,835.00	3,829.00	450,180.00	7,744.00	0
8	7/3/2018	96	8,380.00	8,871.00	3,760.00	455,880.00	7,587.00	0
9	7/4/2018	90	7,939.00	8,420.00	3,829.00	450,620.00	7,658.25	0
10	7/5/2018	15	7,703.00	9,474.00	0.00	7,360.00	10,189.50	0
10	7/5/2018	1	8,872.00	9,493.00	0.00	6,776.00	0.00	0
11	7/6/2018	94	7,985.00	8,615.00	3,249.00	645,424.00	11,576.00	0
12	7/6/2018	93	8,149.00	9,135.00	3,614.00	450,880.00	7,672.00	0
13	7/7/2018	95	8,321.00	9,012.00	3,968.00	450,300.00	7,762.00	0
14	7/7/2018	93	7,747.00	8,341.00	4,017.00	450,800.00	7,783.90	0
15	7/7/2018	95	7,776.00	8,290.00	4,083.00	450,600.00	7,797.20	0
16	7/8/2018	96	8,103.00	8,884.00	3,816.00	450,580.00	7,763.00	0
17	7/9/2018	97	8,000.00	8,340.00	3,751.00	450,640.00	7,850.00	0
18	7/11/2018	95	8,032.00	8,885.00	3,744.00	450,300.00	7,575.00	0
19	7/12/2018	22	8,360.00	9,661.00	4,250.00	23,628.00	14,707.00	0
19	7/13/2018	70	7,983.00	9,354.00	3,918.00	450,760.00	0.00	0
20	7/13/2018	52	8,576.00	9,396.00	0.00	2,945.00	9,693.10	0
20	7/14/2018	32	8,466.00	9,709.00	0.00	8,249.00	0.00	0
21	7/14/2018	98	7,465.00	8,061.00	3,516.00	675,811.00	12,449.80	0
22	7/15/2018	97	7,727.00	8,253.00	3,868.00	445,700.00	7,805.10	0
23	7/16/2018	80	7,563.00	8,601.00	3,885.00	450,120.00	7,882.60	0
24	7/17/2018	87	7,363.00	7,812.00	3,382.00	450,081.00	7,787.90	0
25	7/18/2018	91	7,340.00	7,631.00	3,707.00	450,440.00	7,777.50	0
26	7/18/2018	90	7,053.00	7,555.00	3,277.00	450,820.00	7,613.00	0
27	7/19/2018	99	7,172.00	7,981.00	3,082.00	450,060.00	7,660.50	0
28	7/20/2018	87	7,217.00	7,560.00	3,501.00	447,340.00	7,438.30	0

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11/16/2018

<b>Final Formations Well # 519171 (Blake 2H) API # 47-103-02911</b>				
<b>Formation Name</b>	<b>Drill Top MD (ftKB)</b>	<b>Drill Top (TVD) (ftKB)</b>	<b>Drill Btm MD (ftKB)</b>	<b>Drill Btm (TVD) (ftKB)</b>
SAND/SHALE	3060	3059	6807	6584
SONYEA	6807	6584	6929	6669
MIDDLESEX	6929	6669	6968	6694
GENESEE	6968	6694	7066	6750
GENESEO	7066	6750	7110	6773
TULLY	7110	6773	7156	6795
HAMILTON	7156	6795	7359	6851
MARCELLUS	7359	6851	12927	6863

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

API 47 - 103 - 02911 County Wetzel District Magnolia  
Quad New Martinsville Pad Name Blake Field/Pool Name Mary  
Farm name Lemons, Gary 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 4,388,554 Easting 517,291  
Landing Point of Curve Northing TBD - Only Top Hole Drilled Easting TBD - Only Top Hole Drilled  
Bottom Hole Northing TBD - Only Top Hole Drilled Easting TBD - Only Top Hole Drilled

Elevation (ft) 1293 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)  
Air Drilling additives: air, fresh water, soda ash, KCl, clay guard, PAC, foamer, corrosion inhibitor

Date permit issued 9/25/2013 Date drilling commenced 2/8/2014 Date drilling ceased 2/13/2014  
Date completion activities began Not yet completed Date completion activities ceased OCT 25 2018  
Verbal plugging (Y/N) N Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 90 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1027 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

**APPROVED**

NAME: [Signature]  
DATE: 5-25-17

Reviewed by: [Signature]

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WR-35  
Rev. 8/23/13

API 47-103 - 02911 Farm name Lemons, Gary Well number #2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/fl	Basket Depth(s)	Did cement circulate (Y/N) * Provide details below*
Conductor	24"	20"	90' KB / 80' GL	New	LS - 94 ppf		N - GTS
Surface	17.5"	13.375"	1300' KB / 1280' GL	New	J55 - 54.5 ppf	100' & 200'	Y - CTS
Coal	17.5"	13.375"	1300' KB / 1280' GL	New	J55 - 54.5 ppf	100' & 200'	Y - CTS
Intermediate 1	12.25"	9.625"	2568' KB / 2558' GL	New	J55 - 36 ppf		Y - CTS
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set		13.375" x 9.625" annulus inflatable packer set @ 1186' KB					

Comment Details Circulated 25 bbls cement to surface on the 13.375" casing string. Circulated 30 bbls cement to surface on the 9.625" casing string.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Type 1	34	15.6	1.18	40	Surface	24+
Surface	Class A	940	15.6	1.20	1128	Surface	8
Coal	Class A	940	15.6	1.20	1128	Surface	8
Intermediate 1	Class A	Lead: 700 / Tail: 230	Lead: 15.8 / Tail: 15.6	Lead: 1.22 / Tail: 1.21	Lead: 854 / Tail: 278	Surface	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 5721 MD / 5699 TVD Loggers TD (ft) N/A

Deepest formation penetrated Devonian Shale Plug back to (ft)

Plug back procedure

Kick off depth (ft) TBD - only top hole drilled

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Check all wireline logs run  caliper  density  deviated/directional  induction  
 neutron  resistivity  gamma ray  temperature  sonic

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Well cored  Yes  No Conventional Sidewall Were cuttings collected  Yes  No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING Surface casing has bow spring centralizers placed on

joints 2, 6, 10, 14, 18, 22, 26 and 30. Intermediate casing has bow spring centralizers placed on joints 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56 and 60.

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



WR-35  
Rev. 8/23/13

API 47- 103 - 02911 Farm name Lemons, Gary Well number #2H

PRODUCING FORMATION(S)	DEPTHS
Not yet completed	TVD MD
Not yet producing	

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump  
 SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs  
 OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  
 Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
Sandstone & Shale	0	1027	0	1027	Fresh water @ 90'
Coal	1027	1034	1027	1034	
					No salt water reported
Sandstone & Shale	1027	2216	1027	2216	
Big Lime	2216	2331	2216	2331	
Big Injun	2331	2416	2331	2416	
Sandstone & Shale	2416	2786	2416	2786	
Berea Sandstone	2786	2795	2786	2795	
Shale	2795	3036	2795	3036	
Gordon	3036	3060	3036	3060	
Undiff Devonian Shale	3060	5699	3060	5721	

Please insert additional pages as applicable.

Drilling Contractor Highlands (top hole)  
Address 900 Virginia Street - East City Charleston State WV Zip 25301

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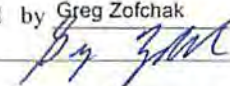
Logging Company Scientific Drilling (top hole)  
Address 124 Vista Drive City Charleroi State PA Zip 15022

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Cementing Company Halliburton (top hole)  
Address 121 Champion Way City Canonsburg State PA Zip 15317

Stimulating Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by Greg Zofchak Telephone 304-225-1600  
Signature  Title Drilling Engineer Date 3/6/2017

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





## Stone Energy

Mary Prospect  
Blake Pad  
2H

OH

Design: As Drilled

## Standard Survey Report

20 February, 2014



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Project: Mary Prospect  
 Site: Blake Pad  
 Well: 2H  
 Wellbore: OH  
 Design: As Drilled



WELL DETAILS: 2H

+N-S	+E-W	Northing	Ground Level: Easting	Latitude	Longitude
0.00	0.00	420231.00	1293.00 1634321.00	39° 38' 47.472 N	80° 47' 55.154 W

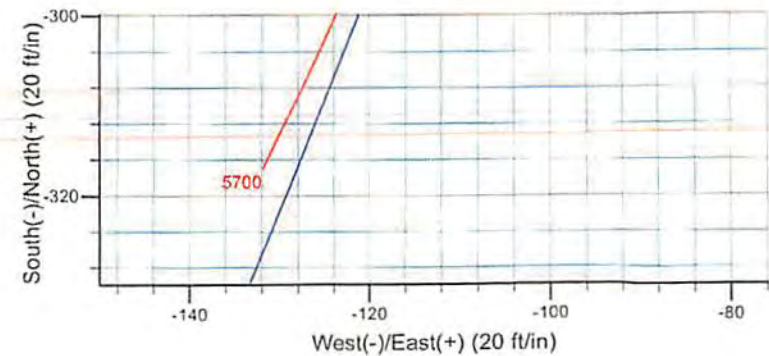
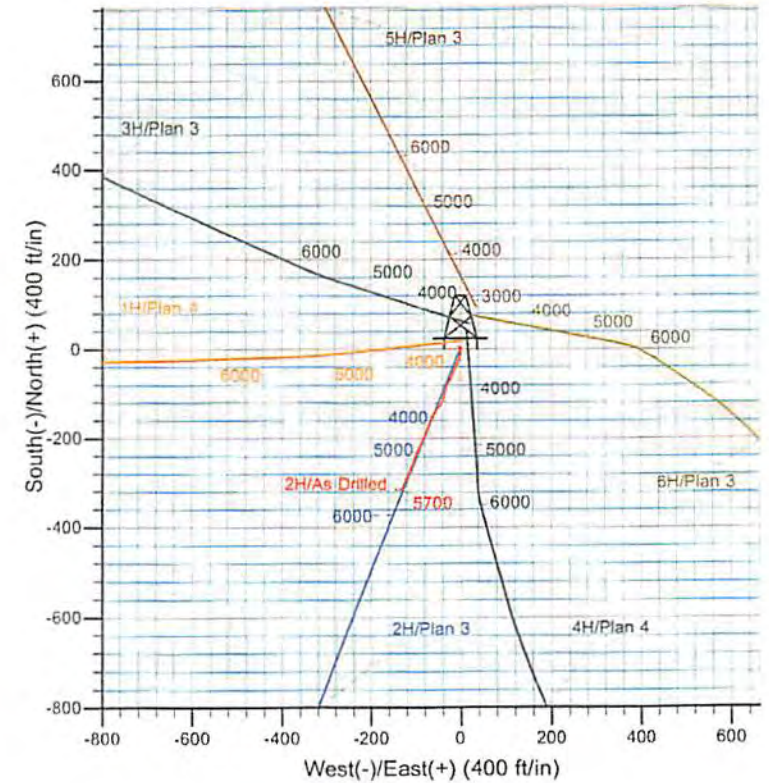
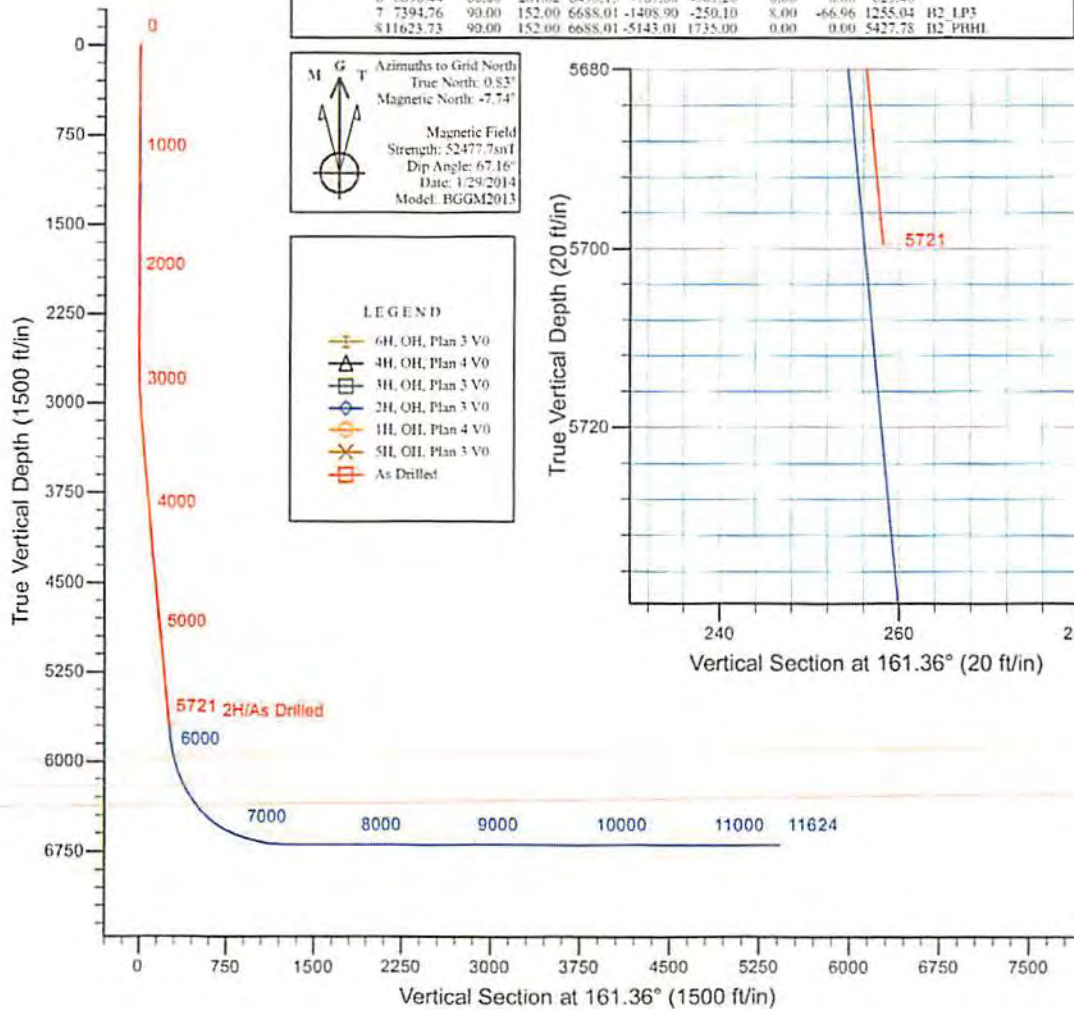
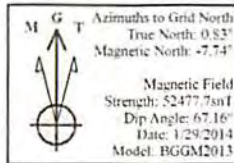
REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well 2H, Grid North  
 Vertical (TVD) Reference: GL 1293' & KB 10' @ 1303.00ft (Highlands 2)  
 Section (VS) Reference: Slot - (0.00N, 0.00E)  
 Measured Depth Reference: GL 1293' & KB 10' @ 1303.00ft (Highlands 2)  
 Calculation Method: Minimum Curvature

PROJECT DETAILS: Mary Prospect

Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: West Virginia North 4701  
 System Datum: Mean Sea Level

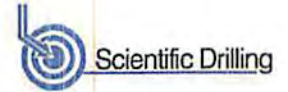
SECTION DETAILS										
Sec	MD	Inc	Av1	TVD	+N-S	+E-W	Dleg	IFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2600.01	0.00	0.00	2600.01	0.00	0.00	0.00	0.00	0.00	0.00
3	3300.01	7.00	202.00	3298.27	-39.60	-16.00	1.00	202.00	32.41	
4	5802.71	7.00	202.00	5782.32	-322.39	-130.25	0.00	0.00	263.84	
5	6656.01	60.00	201.62	6492.92	-759.48	-303.87	6.00	-0.42	622.50	
6	6696.44	60.00	201.62	6498.13	-767.88	-307.20	0.00	0.00	629.40	
7	7394.76	90.00	152.00	6688.01	-1408.90	-250.10	8.00	-66.96	1255.04	H2 LP3
8	11623.73	90.00	152.00	6688.01	-5143.01	1735.00	0.00	0.00	5427.78	H2 PRHL







Scientific Drilling  
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 2H
Project:	Mary Prospect	TVD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Site:	Blake Pad	MD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Well:	2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Northeast District

Project	Mary Prospect, West Virginia		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		

Site	Blake Pad				
Site Position:		Northing:	420,250.00 usft	Latitude:	39° 38' 47.661 N
From:	Map	Easting:	1,634,328.00 usft	Longitude:	80° 47' 55.068 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.83 "

Well	2H					
Well Position	+N/-S	0.00 ft	Northing:	420,231.00 usft	Latitude:	39° 38' 47.472 N
	+E/-W	0.00 ft	Easting:	1,634,321.00 usft	Longitude:	80° 47' 55.154 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	1,293.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	11/14/2013	-8.56	67.18	52,505
	BGGM2013	1/29/2014	-8.57	67.16	52,478

Design	As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		161.36

Survey Program	Date 2/20/2014				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	3,400.00	Survey 1 - SDI Gyro (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.1	
3,500.00	5,721.00	Survey 2 - SDI MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	360.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Ground Level</b>									
100.00	0.16	330.46	100.00	0.11	-0.06	-0.12	0.18	0.18	0.00
<b>First SDI Gyro Survey</b>									
200.00	0.22	331.36	200.00	0.40	-0.22	-0.45	0.06	0.05	0.90
300.00	0.18	325.88	300.00	0.70	-0.40	-0.79	0.04	-0.04	-5.48
400.00	0.28	333.96	400.00	1.05	-0.60	-1.18	0.10	0.10	8.08

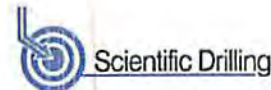
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Scientific Drilling  
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 2H
Project:	Mary Prospect	TVD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Site:	Blake Pad	MD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Well:	2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
500.00	0.11	324.89	500.00	1.35	-0.76	-1.52	0.17	-0.17	-9.07
600.00	0.12	316.71	600.00	1.50	-0.89	-1.71	0.02	0.01	-8.18
700.00	0.30	306.16	700.00	1.73	-1.17	-2.01	0.18	0.18	-10.55
800.00	0.23	309.32	800.00	2.01	-1.54	-2.40	0.07	-0.07	3.16
900.00	0.20	311.68	899.99	2.26	-1.82	-2.72	0.03	-0.03	2.36
1,000.00	0.16	313.04	999.99	2.47	-2.06	-2.99	0.04	-0.04	1.36
1,100.00	0.22	313.68	1,099.99	2.70	-2.30	-3.29	0.06	0.06	0.64
1,200.00	0.22	321.09	1,199.99	2.98	-2.56	-3.64	0.03	0.00	7.41
1,300.00	0.21	319.16	1,299.99	3.27	-2.80	-3.99	0.01	-0.01	-1.93
1,400.00	0.19	330.98	1,399.99	3.55	-3.00	-4.32	0.05	-0.02	11.82
1,500.00	0.31	337.69	1,499.99	3.94	-3.18	-4.75	0.12	0.12	6.71
1,600.00	0.30	346.62	1,599.99	4.45	-3.34	-5.28	0.05	-0.01	8.93
1,700.00	0.38	354.71	1,699.99	5.03	-3.43	-5.87	0.09	0.08	8.09
1,800.00	0.38	359.62	1,799.99	5.70	-3.47	-6.51	0.03	0.00	4.91
1,900.00	0.26	5.22	1,899.98	6.25	-3.45	-7.03	0.12	-0.12	5.60
2,000.00	0.17	65.50	1,999.98	6.54	-3.29	-7.25	0.23	-0.09	60.28
2,100.00	0.48	121.65	2,099.98	6.38	-2.80	-6.94	0.41	0.31	56.15
2,200.00	0.52	124.84	2,199.98	5.90	-2.07	-6.26	0.05	0.04	3.19
2,300.00	0.56	129.39	2,299.97	5.33	-1.32	-5.48	0.06	0.04	4.55
2,400.00	0.67	136.80	2,399.97	4.60	-0.54	-4.53	0.14	0.11	7.41
2,500.00	0.53	138.20	2,499.96	3.83	0.16	-3.57	0.14	-0.14	1.40
2,600.00	0.42	141.40	2,599.96	3.20	0.70	-2.80	0.11	-0.11	3.20
2,700.00	0.48	153.44	2,699.96	2.53	1.12	-2.04	0.11	0.05	12.04
2,800.00	2.10	178.45	2,799.93	0.33	1.35	0.12	1.68	1.62	25.01
2,900.00	3.60	183.48	2,899.80	-4.64	1.21	4.78	1.52	1.50	5.03
3,000.00	4.27	186.22	2,999.56	-11.47	0.62	11.07	0.70	0.67	2.74
3,100.00	4.36	196.20	3,099.28	-18.82	-0.84	17.57	0.76	0.09	9.85
3,200.00	5.26	203.40	3,198.93	-26.68	-3.73	24.09	1.08	0.90	7.20
3,300.00	7.13	204.74	3,298.34	-36.52	-8.14	32.01	1.88	1.67	1.34
3,400.00	7.66	204.49	3,397.51	-48.23	-13.50	41.38	0.53	0.53	-0.25
<b>Last SDI Gyro Survey</b>									
3,500.00	6.56	201.78	3,496.74	-59.60	-18.39	50.59	1.15	-1.10	-2.7
<b>First SDI MWD Survey</b>									
3,556.00	6.59	210.34	3,552.37	-65.34	-21.20	55.14	1.75	0.05	15.29
3,651.00	6.63	210.76	3,646.74	-74.76	-26.75	62.28	0.07	0.04	0.44
3,745.00	7.34	197.27	3,740.05	-85.16	-31.31	70.68	1.90	0.76	-14.35
3,839.00	8.30	189.97	3,833.18	-97.57	-34.27	81.50	1.47	1.02	-7.77
3,933.00	7.09	195.52	3,926.33	-109.84	-37.00	92.26	1.51	-1.29	5.90
4,028.00	6.74	207.75	4,020.64	-120.43	-41.16	100.95	1.59	-0.37	12.87
4,122.00	6.78	218.67	4,113.99	-129.64	-47.20	107.75	1.37	0.04	11.62
4,216.00	7.62	218.86	4,207.25	-138.83	-54.58	114.10	0.89	0.89	0.20
4,309.00	8.36	207.59	4,299.35	-149.62	-61.58	122.09	1.86	0.80	-12.12
4,403.00	7.15	203.89	4,392.49	-161.03	-67.11	131.13	1.39	-1.29	-3.94
4,497.00	6.94	196.05	4,485.79	-171.83	-71.05	140.11	1.05	-0.22	-8.34

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Scientific Drilling  
Survey Report



<b>Company:</b> Stone Energy	<b>Local Co-ordinate Reference:</b> Well 2H
<b>Project:</b> Mary Prospect	<b>TVD Reference:</b> GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
<b>Site:</b> Blake Pad	<b>MD Reference:</b> GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
<b>Well:</b> 2H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> As Drilled	<b>Database:</b> Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,590.00	6.55	204.47	4,578.14	-182.06	-74.80	148.60	1.14	-0.42	9.05
4,684.00	6.22	201.85	4,671.56	-191.67	-78.92	156.39	0.47	-0.35	-2.79
4,778.00	6.86	203.15	4,764.95	-201.56	-83.02	164.44	0.70	0.68	1.38
4,873.00	7.20	199.73	4,859.24	-212.38	-87.26	173.34	0.57	0.36	-3.60
4,967.00	7.57	207.97	4,952.46	-223.39	-92.15	182.21	1.19	0.39	8.77
5,061.00	7.86	204.91	5,045.61	-234.69	-97.76	191.13	0.53	0.31	-3.26
5,155.00	8.77	199.50	5,138.62	-247.27	-102.86	201.42	1.28	0.97	-5.76
5,249.00	7.68	201.71	5,231.65	-259.86	-107.58	211.84	1.21	-1.16	2.35
5,344.00	7.82	198.32	5,325.78	-271.90	-111.96	221.84	0.50	0.15	-3.57
5,438.00	7.31	204.37	5,418.97	-283.42	-116.44	231.33	1.01	-0.54	6.44
5,532.00	7.69	202.79	5,512.16	-294.66	-121.34	240.42	0.46	0.40	-1.68
5,626.00	7.43	206.04	5,605.35	-305.92	-126.44	249.45	0.53	-0.28	3.46
<b>Last SDI MWD Survey</b>									
5,721.00	7.43	206.04	5,699.55	-316.96	-131.84	258.19	0.00	0.00	0.00
<b>Projection to Bit</b>									

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10.00	10.00	0.00	0.00	Ground Level
100.00	100.00	0.11	-0.06	First SDI Gyro Survey
3,400.00	3,397.51	-48.23	-13.50	Last SDI Gyro Survey
3,500.00	3,496.74	-59.60	-18.39	First SDI MWD Survey
5,626.00	5,605.35	-305.92	-126.44	Last SDI MWD Survey
5,721.00	5,699.55	-316.96	-131.84	Projection to Bit

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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## Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Jacostec
Scale	0.999941	Report Generated	6/21/2018 at 11:16:47 AM
Convergence at slot	0.83° West	Database/Source file	WA_MPL_EASTERNUS_Defn/Blake_2H_519171_AWP_Proj_12927_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-19.21	-6.29	1634321.71	420230.79	39°38'47.470"N	80°47'55.145"W
Facility Reference Pt			1634328.00	420250.00	39°38'47.661"N	80°47'55.068"W
Field Reference Pt			1688243.35	385255.46	39°33'08.944"N	80°36'20.337"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Precision 539 (RKB) to Facility Vertical Datum	1316.00ft
Horizontal Reference Pt	Slot	Precision 539 (RKB) to Mean Sea Level	1316.00ft
Vertical Reference Pt	Precision 539 (RKB)	Precision 539 (RKB) to Mud Line at Slot (Slot 2H)	18.00ft
MD Reference Pt	Precision 539 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	332.50°

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'



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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations) † = interpolated/extrapolated station										
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	TVSS (ft)	Vert Sect (ft)	North (ft)	East (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00†	0.000	330.460	0.00	-1316.00	0.00	0.00	0.00	0.00	0.00	0.00
18.00	0.000	330.460	18.00	-1298.00	0.00	0.00	0.00	0.00	0.00	0.00
108.00	0.160	330.460	108.00	-1208.00	0.13	0.11	-0.06	0.18	0.18	-32.82
208.00	0.220	331.360	208.00	-1108.00	0.46	0.40	-0.22	0.06	0.06	0.90
308.00	0.180	325.880	308.00	-1008.00	0.81	0.70	-0.40	0.04	-0.04	-5.48
408.00	0.280	333.960	408.00	-908.00	1.21	1.05	-0.60	0.10	0.10	8.08
508.00	0.110	324.890	508.00	-808.00	1.54	1.35	-0.76	0.17	-0.17	-9.07
608.00	0.120	316.710	608.00	-708.00	1.74	1.50	-0.89	0.02	0.01	-8.18
708.00	0.300	306.160	708.00	-608.00	2.08	1.73	-1.17	0.18	0.18	-10.55
808.00	0.230	309.320	808.00	-508.00	2.50	2.01	-1.54	0.07	-0.07	3.16
908.00	0.200	311.680	907.99	-408.01	2.84	2.26	-1.82	0.03	-0.03	2.36
1008.00	0.160	313.040	1007.99	-308.01	3.14	2.47	-2.06	0.04	-0.04	1.36
1108.00	0.220	313.680	1107.99	-208.01	3.45	2.70	-2.30	0.06	0.06	0.64
1208.00	0.220	321.090	1207.99	-108.01	3.82	2.98	-2.56	0.03	0.00	7.41
1308.00	0.210	319.160	1307.99	-8.01	4.19	3.27	-2.80	0.01	-0.01	-1.93
1408.00	0.190	330.980	1407.99	91.99	4.53	3.55	-3.00	0.05	-0.02	11.82
1508.00	0.310	337.690	1507.99	191.99	4.97	3.94	-3.18	0.12	0.12	6.71
1608.00	0.300	346.620	1607.99	291.99	5.49	4.45	-3.34	0.05	-0.01	8.93
1708.00	0.380	354.710	1707.99	391.99	6.05	5.03	-3.43	0.09	0.08	8.09
1808.00	0.380	359.620	1807.99	491.99	6.65	5.70	-3.47	0.03	0.00	4.91
1908.00	0.260	5.220	1907.98	591.98	7.14	6.25	-3.45	0.12	-0.12	5.60
2008.00	0.170	65.500	2007.98	691.98	7.32	6.54	-3.29	0.23	-0.09	60.28
2108.00	0.480	121.650	2107.98	791.98	6.95	6.38	-2.80	0.41	0.31	56.15
2208.00	0.520	124.840	2207.98	891.98	6.19	5.90	-2.07	0.05	0.04	3.19
2308.00	0.560	129.390	2307.97	991.97	5.34	5.33	-1.32	0.06	0.04	4.55
2408.00	0.670	136.800	2407.97	1091.97	4.33	4.60	-0.54	0.14	0.11	7.41
2508.00	0.530	138.200	2507.96	1191.96	3.32	3.83	0.16	0.14	-0.14	1.40
2607.99	0.420	141.400	2607.95	1291.95	2.51	3.20	0.70	0.11	-0.11	3.20
2707.99	0.480	153.440	2707.95	1391.95	1.73	2.53	1.12	0.11	0.06	12.04
2807.99	2.100	178.450	2807.92	1491.92	-0.33	0.33	1.35	1.68	1.62	25.01

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	TVDSS (ft)	Vert Sect (ft)	North (ft)	East (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2907.99	3.600	183.480	2907.79	1591.79	-4.67	-4.64	1.21	1.52	1.50	5.03
3007.99	4.270	186.220	3007.55	1691.55	-10.46	-11.47	0.62	0.70	0.67	2.74
3107.99	4.360	196.200	3107.27	1791.27	-16.31	-18.82	-0.84	0.76	0.09	9.98
3207.99	5.260	203.400	3206.92	1890.92	-21.95	-26.68	-3.73	1.08	0.90	7.20
3307.99	7.130	204.740	3306.33	1990.33	-28.64	-36.52	-8.14	1.88	1.87	1.34
3407.99	7.660	204.490	3405.50	2089.50	-36.54	-48.23	-13.50	0.53	0.53	-0.25
3507.99	6.560	201.780	3504.73	2188.73	-44.37	-59.60	-18.39	1.15	-1.10	-2.71
3563.99	6.590	210.340	3560.36	2244.36	-48.17	-65.34	-21.20	1.75	0.05	15.29
3658.99	6.630	210.760	3654.73	2338.73	-53.96	-74.76	-26.76	0.07	0.04	0.44
3752.99	7.340	197.270	3748.04	2432.04	-61.07	-85.16	-31.31	1.90	0.76	-14.35
3846.99	8.300	189.970	3841.17	2525.17	-70.72	-97.57	-34.27	1.47	1.02	-7.77
3940.99	7.090	195.520	3934.32	2618.32	-80.35	-109.84	-37.00	1.51	-1.29	5.90
4035.99	6.740	207.750	4028.63	2712.63	-87.81	-120.43	-41.16	1.59	-0.37	12.87
4129.99	6.780	218.670	4121.98	2805.98	-93.20	-129.64	-47.20	1.37	0.04	11.62
4223.99	7.620	218.860	4215.24	2899.24	-97.94	-138.83	-54.58	0.89	0.89	0.20
4316.99	8.360	207.590	4307.34	2991.34	-104.28	-149.62	-61.58	1.86	0.80	-12.12
4410.99	7.150	203.890	4400.48	3084.48	-111.84	-161.03	-67.11	1.39	-1.29	-3.94
4504.99	6.940	196.050	4493.78	3177.78	-119.61	-171.83	-71.05	1.05	-0.22	-8.34
4597.99	6.550	204.470	4586.13	3270.13	-126.95	-182.06	-74.80	1.14	-0.42	9.05
4691.99	6.220	201.850	4679.55	3363.55	-133.57	-191.87	-78.92	0.47	-0.35	-2.79
4785.99	6.860	203.150	4772.94	3456.94	-140.45	-201.56	-83.02	0.70	0.68	1.38
4880.99	7.200	199.730	4867.22	3551.22	-148.09	-212.38	-87.26	0.57	0.36	-3.60
4974.99	7.570	207.970	4960.45	3644.45	-155.60	-223.39	-92.15	1.19	0.39	8.77
5068.99	7.860	204.910	5053.60	3737.60	-163.03	-234.69	-97.76	0.53	0.31	-3.26
5162.99	8.770	199.500	5146.61	3830.61	-171.84	-247.27	-102.86	1.28	0.97	-5.76
5256.99	7.680	201.710	5239.64	3923.64	-180.83	-259.86	-107.58	1.21	-1.16	2.35
5351.99	7.820	198.320	5333.77	4017.77	-189.48	-271.90	-111.96	0.50	0.15	-3.57
5445.99	7.310	204.370	5426.96	4110.96	-197.63	-283.42	-116.44	1.01	-0.54	6.44
5539.99	7.690	202.790	5520.15	4204.15	-205.34	-294.66	-121.34	0.46	0.40	-1.68
5633.99	7.430	206.040	5613.34	4297.34	-212.97	-305.92	-126.44	0.53	-0.28	3.46





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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
5731.00	7.350	204.570	5709.54	4393.54	-220.51	-317.20	-131.78	0.21	-0.08	-1.52
5775.00	7.580	195.730	5753.17	4437.17	-224.35	-322.55	-133.73	2.66	0.52	-20.09
5820.00	10.400	173.570	5797.62	4481.62	-230.31	-329.45	-134.08	9.82	6.27	-49.24
5865.00	12.280	142.660	5841.78	4525.78	-238.83	-337.30	-130.72	13.94	4.18	-68.69
5910.00	15.340	121.620	5885.51	4569.51	-248.66	-344.23	-122.74	12.96	6.80	-46.76
5955.00	18.300	110.530	5928.59	4612.59	-259.02	-349.83	-111.05	9.67	6.58	-24.64
5999.00	22.350	104.180	5969.84	4653.84	-269.73	-354.30	-96.47	10.47	9.20	-14.43
6044.00	27.770	98.730	6010.60	4694.60	-281.62	-357.99	-77.79	13.08	12.04	-12.11
6089.00	32.420	94.550	6049.53	4733.53	-294.23	-360.54	-55.39	11.33	10.33	-9.29
6134.00	37.220	92.920	6086.46	4770.46	-307.53	-362.20	-29.78	10.86	10.67	-3.62
6178.00	42.960	92.620	6120.11	4804.11	-321.80	-363.56	-1.47	13.05	13.05	-0.68
6268.00	45.790	91.780	6184.43	4868.43	-352.97	-365.96	61.42	3.21	3.14	-0.93
6357.00	45.760	92.330	6246.51	4930.51	-384.43	-368.25	125.16	0.44	-0.03	0.62
6402.00	44.760	89.370	6278.18	4962.18	-399.61	-368.73	157.11	5.17	-2.22	-6.58
6447.00	42.750	82.000	6310.71	4994.71	-411.88	-366.43	188.10	12.17	-4.47	-16.38
6492.00	41.090	74.070	6344.21	5028.21	-419.95	-360.24	217.47	12.33	-3.69	-17.62
6537.00	39.620	67.440	6378.52	5062.52	-424.16	-350.67	244.95	10.08	-3.27	-14.73
6581.00	39.380	59.440	6412.49	5096.49	-424.62	-338.19	269.94	11.57	-0.55	-18.18
6626.00	39.290	55.010	6447.31	5131.31	-422.00	-322.75	293.91	6.24	-0.20	-9.84
6671.00	39.840	50.130	6482.01	5166.01	-417.05	-305.34	316.65	7.01	1.22	-10.84
6715.00	40.580	42.190	6515.63	5199.63	-409.06	-285.69	337.10	11.76	1.68	-18.05
6760.00	41.710	34.910	6549.54	5233.54	-397.04	-262.55	355.50	10.93	2.51	-16.18
6805.00	43.040	28.720	6582.79	5266.79	-381.56	-236.80	371.46	9.73	2.96	-13.76
6850.00	44.610	22.250	6615.27	5299.27	-362.80	-208.69	384.83	10.55	3.49	-14.38
6895.00	46.920	15.970	6646.68	5330.68	-340.65	-178.24	395.34	11.24	5.13	-13.96
6940.00	50.330	11.320	6676.43	5360.43	-315.22	-145.44	403.27	10.84	7.58	-10.33
6984.00	53.180	7.100	6703.67	5387.67	-287.51	-111.34	408.77	9.93	6.48	-9.59
7029.00	55.560	3.440	6729.89	5413.89	-256.76	-74.93	412.11	8.46	5.29	-8.13
7074.00	58.150	359.050	6754.50	5438.50	-223.73	-37.28	412.91	9.99	5.76	-9.76
7119.00	60.530	354.400	6777.46	5461.46	-188.44	1.34	410.68	10.34	5.29	-10.33

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
7164.00	63.700	349.380	6798.51	5482.51	-150.93	40.69	405.05	12.12	7.04	-11.16
7209.00	69.040	344.370	6816.55	5500.55	-111.02	80.80	395.66	15.64	11.87	-11.13
7253.00	75.190	340.820	6830.06	5514.06	-69.81	120.70	383.05	16.16	13.98	-8.52
7298.00	78.470	337.820	6840.32	5524.32	-26.30	161.66	367.50	9.48	7.29	-6.22
7343.00	80.100	335.300	6848.68	5532.68	17.80	202.22	349.91	6.59	3.62	-5.60
7388.00	81.540	332.040	6855.86	5539.86	62.21	242.03	330.21	7.83	3.20	-7.24
7432.00	85.260	329.930	6860.92	5544.92	105.89	280.24	309.01	9.70	8.45	-4.80
7477.00	90.060	327.800	6862.76	5546.76	150.75	318.71	285.77	11.67	10.67	-4.73
7522.00	90.920	326.610	6862.37	5546.37	195.55	356.53	261.40	3.26	1.91	-2.64
7611.00	90.430	325.560	6861.32	5545.32	283.99	430.39	211.74	1.30	-0.55	-1.18
7701.00	90.250	326.110	6860.79	5544.79	373.38	504.85	161.20	0.64	-0.20	0.61
7791.00	89.750	324.740	6860.79	5544.79	462.69	578.95	110.13	1.62	-0.56	-1.52
7880.00	89.480	323.340	6861.39	5545.39	550.72	650.99	57.87	1.60	-0.30	-1.57
7970.00	89.690	320.700	6862.04	5546.04	639.20	721.92	2.49	2.94	0.23	-2.93
8059.00	89.380	324.630	6862.76	5546.76	726.88	792.67	-51.47	4.43	-0.35	4.42
8149.00	89.480	328.740	6863.66	5547.66	816.39	867.86	-100.89	4.57	0.11	4.57
8239.00	90.890	330.010	6863.37	5547.37	906.25	945.30	-146.74	2.11	1.57	1.41
8328.00	90.860	333.170	6862.01	5546.01	995.22	1023.57	-189.07	3.55	-0.03	3.55
8418.00	92.920	336.910	6859.04	5543.04	1085.06	1105.10	-227.02	4.74	2.29	4.16
8507.00	92.280	334.210	6855.00	5539.00	1173.83	1186.03	-263.80	3.11	-0.72	-3.03
8597.00	92.460	331.660	6851.28	5535.28	1263.75	1266.10	-304.72	2.84	0.20	-2.83
8686.00	92.220	329.890	6847.64	5531.64	1352.63	1343.70	-348.13	2.01	-0.27	-1.99
8776.00	91.780	330.660	6844.50	5528.50	1442.50	1421.81	-392.73	0.98	-0.49	0.86
8866.00	93.080	334.390	6840.69	5524.69	1532.40	1501.57	-434.21	4.39	1.44	4.14
8955.00	92.830	333.100	6836.10	5520.10	1621.26	1581.28	-473.53	1.47	-0.28	-1.45
9045.00	92.890	328.000	6831.60	5515.60	1711.07	1659.53	-517.71	5.66	0.07	-5.67
9134.00	92.950	327.190	6827.07	5511.07	1799.63	1734.57	-565.34	0.91	0.07	-0.91
9224.00	92.800	328.500	6822.56	5506.56	1889.22	1810.67	-613.18	1.46	-0.17	1.46
9313.00	91.480	319.160	6819.23	5503.23	1977.04	1882.38	-665.61	10.59	-1.48	-10.49
9403.00	91.420	321.930	6816.95	5500.95	2065.05	1951.84	-722.78	3.08	-0.07	3.08





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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	TVDSS (ft)	Vert Sect (ft)	North (ft)	East (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9492.00	90.890	328.970	6815.15	5499.15	2153.30	2025.09	-773.21	7.93	-0.60	7.91
9582.00	90.950	326.160	6813.71	5497.71	2242.95	2101.03	-821.47	3.12	0.07	-3.12
9671.00	90.650	327.290	6812.46	5496.46	2331.49	2175.43	-870.29	1.31	-0.34	1.27
9771.00	90.460	327.730	6811.50	5495.50	2431.10	2259.77	-924.01	0.48	-0.19	0.44
9851.00	91.720	326.050	6809.97	5493.97	2510.70	2326.77	-967.69	2.62	1.58	-2.10
9940.00	91.820	326.960	6807.22	5491.22	2599.17	2400.95	-1016.79	1.03	0.11	1.02
10030.00	91.790	325.770	6804.39	5488.39	2688.61	2475.85	-1066.61	1.32	-0.03	-1.32
10119.00	91.850	325.360	6801.56	5485.56	2776.91	2549.21	-1116.91	0.47	0.07	-0.46
10209.00	91.750	326.450	6798.74	5482.74	2866.27	2623.70	-1167.34	1.22	-0.11	1.21
10298.00	91.720	327.060	6796.04	5480.04	2954.78	2698.10	-1216.11	0.69	-0.03	0.69
10388.00	91.790	328.180	6793.28	5477.28	3044.41	2774.07	-1264.28	1.25	0.08	1.24
10478.00	91.760	329.850	6790.50	5474.50	3134.20	2851.19	-1310.59	1.85	-0.03	1.86
10567.00	91.720	331.420	6787.79	5471.79	3223.11	2928.72	-1354.21	1.76	-0.04	1.76
10657.00	91.880	332.660	6784.97	5468.97	3313.06	3008.17	-1396.39	1.39	0.18	1.38
10746.00	91.850	331.990	6782.07	5466.07	3402.01	3086.95	-1437.70	0.75	-0.03	-0.75
10836.00	91.850	331.850	6779.16	5463.16	3491.96	3166.31	-1480.04	0.16	0.00	-0.16
10926.00	91.820	330.440	6776.28	5460.28	3581.89	3245.10	-1523.45	1.57	-0.03	-1.57
11015.00	91.820	329.210	6773.46	5457.46	3670.74	3322.00	-1568.17	1.38	0.00	-1.38
11105.00	91.720	328.750	6770.68	5454.68	3760.53	3399.09	-1614.52	0.52	-0.11	-0.51
11194.00	91.630	328.460	6768.07	5452.07	3849.29	3475.02	-1660.87	0.34	-0.10	-0.33
11284.00	91.630	329.200	6765.51	5449.51	3939.07	3552.00	-1707.43	0.82	0.00	0.82
11374.00	91.690	331.040	6762.91	5446.91	4028.95	3630.00	-1752.25	2.04	0.07	2.04
11463.00	91.720	330.990	6760.26	5444.26	4117.88	3707.82	-1795.36	0.07	0.03	-0.06
11553.00	91.660	333.930	6757.60	5441.60	4207.83	3787.58	-1836.95	3.27	-0.07	3.27
11642.00	91.890	334.860	6755.00	5439.00	4296.74	3867.80	-1875.39	1.05	0.03	1.04
11732.00	91.690	332.790	6752.35	5436.35	4386.67	3948.53	-1915.07	2.30	0.00	-2.30
11821.00	91.720	330.440	6749.70	5433.70	4475.62	4026.79	-1957.36	2.64	0.03	-2.64
11911.00	91.630	328.600	6747.07	5431.07	4565.45	4104.32	-2002.99	2.05	-0.10	-2.04
12001.00	91.690	327.340	6744.46	5428.46	4655.13	4180.58	-2050.70	1.40	0.07	-1.40
12090.00	91.630	325.570	6741.88	5425.88	4743.60	4254.73	-2099.86	1.99	-0.07	-1.99

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
12180.00	91.690	324.470	6739.28	5423.28	4832.79	4328.44	-2151.43	1.22	0.07	-1.22
12269.00	91.660	324.370	6736.67	5420.67	4920.87	4400.79	-2203.20	0.12	-0.03	-0.11
12359.00	91.660	323.980	6734.07	5418.07	5009.88	4473.73	-2255.85	0.43	0.00	-0.43
12449.00	91.630	323.490	6731.48	5415.48	5098.80	4546.27	-2309.07	0.55	-0.03	-0.54
12538.00	91.690	322.930	6728.91	5412.91	5186.59	4617.51	-2362.34	0.63	0.07	-0.63
12628.00	91.690	323.410	6726.25	5410.25	5275.36	4689.52	-2416.27	0.53	0.00	0.53
12717.00	91.630	325.560	6723.67	5407.67	5363.45	4761.93	-2467.95	2.42	-0.07	2.42
12807.00	91.720	327.510	6721.04	5405.04	5452.92	4836.97	-2517.55	2.17	0.10	2.17
12897.00	91.660	327.570	6718.39	5402.39	5542.55	4912.88	-2565.84	0.09	-0.07	0.07
12927.00	91.660	327.570	6717.52	5401.52	5572.42	4938.19	-2581.92	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Blake 2H (519171) AWB Ref Wellpath: Blake 2H (519171) AWP Proj: 12927'										
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]	
17.5in Open Hole	18.00	1253.00	1235.00	18.00	1252.99	0.00	0.00	3.11	-2.66	
13.375in Casing Surface	18.00	1253.00	1235.00	18.00	1252.99	0.00	0.00	3.11	-2.66	
12.25in Open Hole	1253.00	2583.00	1330.00	1252.99	2582.96	3.11	-2.66	3.34	0.58	
9.625in Casing Intermediate	18.00	2583.00	2565.00	18.00	2582.96	0.00	0.00	3.34	0.58	
8.75in Open Hole	2583.00	5634.00	3051.00	2582.96	5613.35	3.34	0.58	-305.92	-126.44	

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Blake 2H BHL Rev-1	6705.20	4942.91	-2573.65	1631748.22	425173.39	39°39'35.947"N	80°48'28.962"W	point
Blake Pad HL	6843.00	18.49	6.72	1634328.43	420249.28	39°38'47.654"N	80°47'55.062"W	polygon
Blake 2H LP Rev-1	6862.00	304.44	293.94	1634615.63	420535.21	39°38'50.521"N	80°47'51.444"W	point

WELLPATH COMPOSITION - Ref Wellbore: Blake 2H (519171) AWB Ref Wellpath: Blake 2H (519171) AWP Proj: 12927'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	3407.99	SDI Keeper v1.04	01 SDI Gyro <12-1/4"> (108'-3408')	Blake 2H (519171) AWB
3407.99	5633.99	OWSG MWD rev2 - Standard	02 SDI MWD <8-3/4"> (3408')(3508'-5634')	Blake 2H (519171) AWB
5633.99	12897.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	03 BH AT Curve +MagVar MSA <8-1/2"> (5634')(5731'-12897')	Blake 2H (519171) AWB
12897.00	12927.00	Blind Drilling (std)	Projection to bit	Blake 2H (519171) AWB

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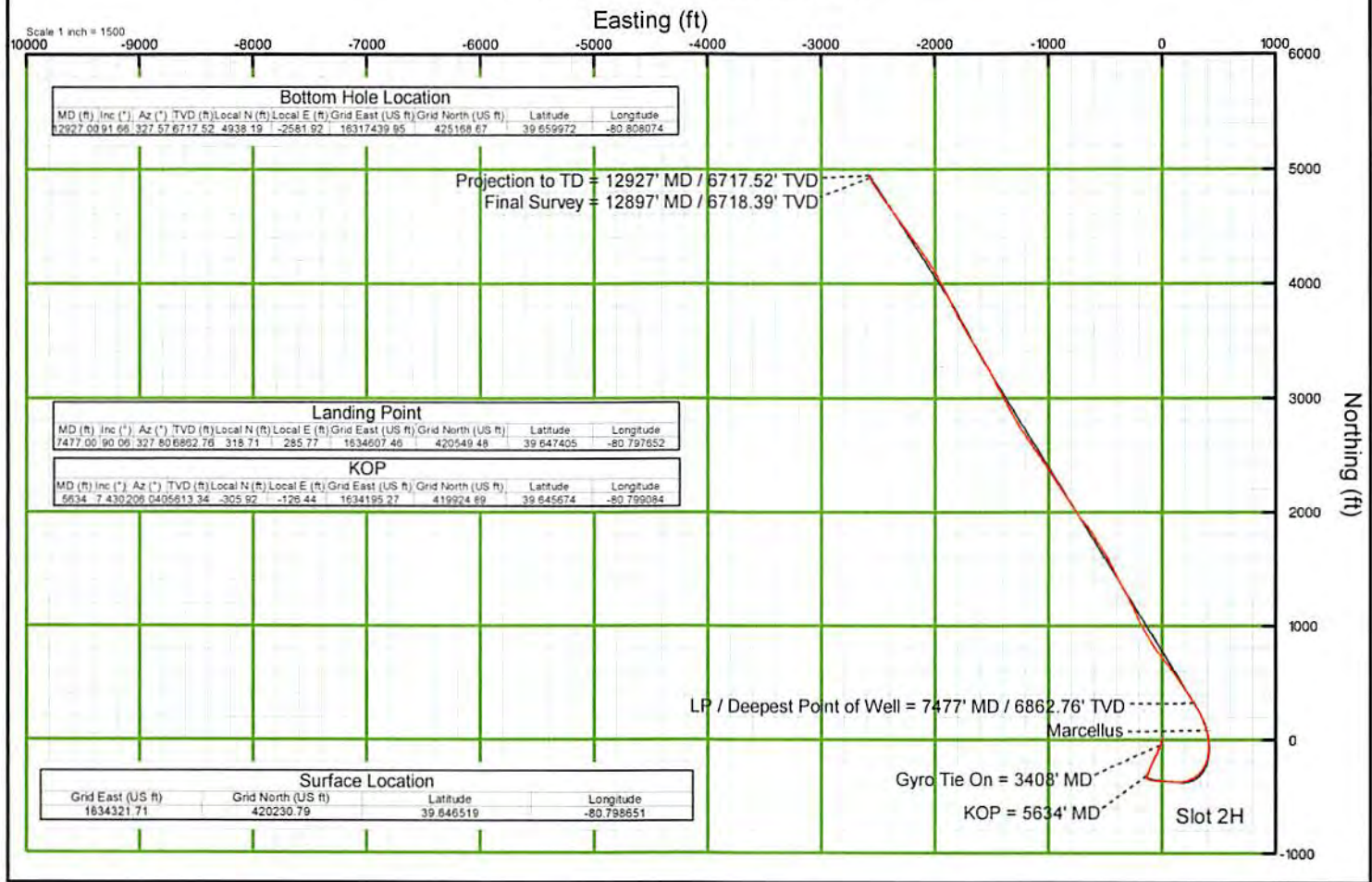
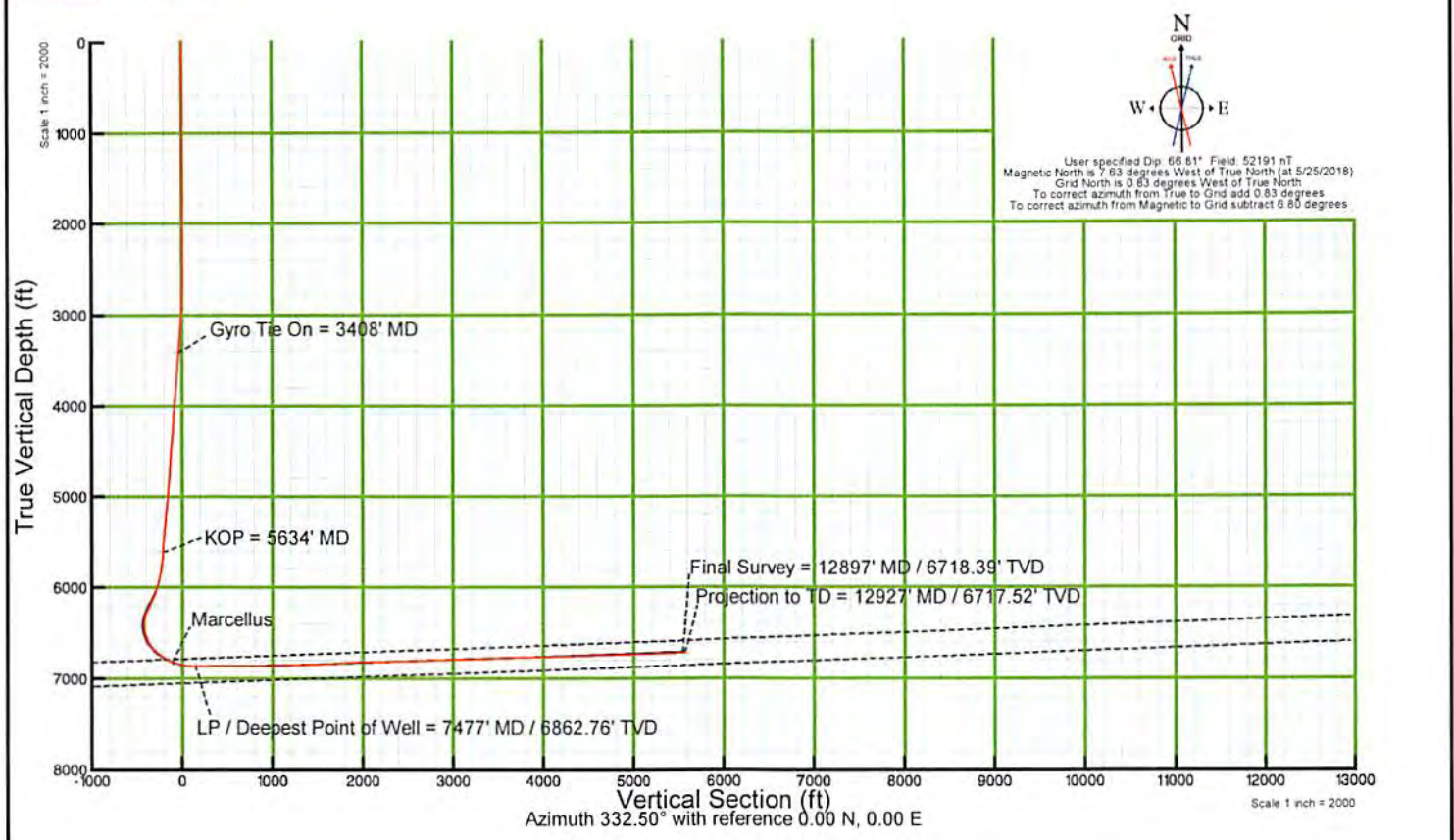
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KB elevation = 1316ft  
Ground elevation = 1298ft

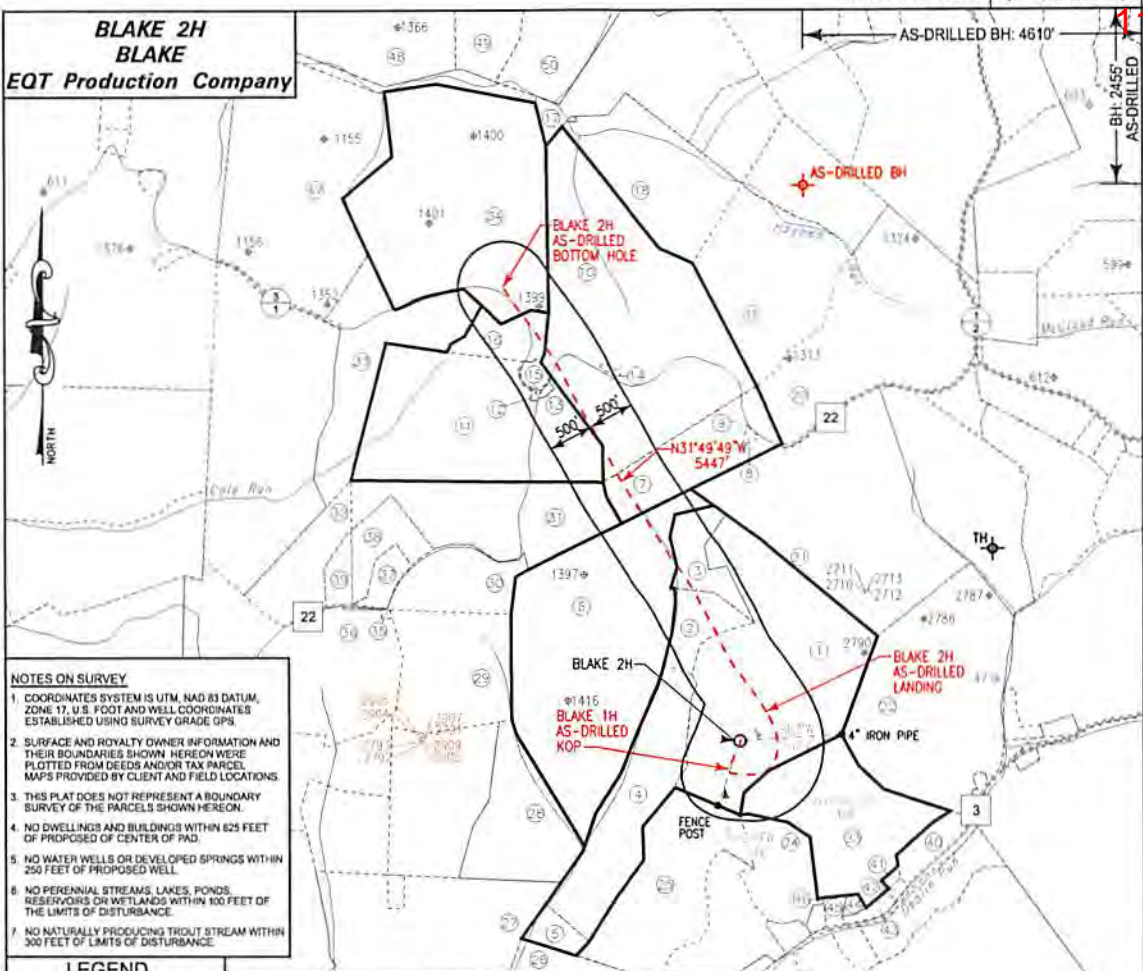




LATITUDE 39° 40' 00" TH: 1955'

11/16/2018

**BLAKE 2H  
BLAKE  
EQT Production Company**



**NOTES ON SURVEY**

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND METER COORDINATES ESTABLISHED USING SURVEY GRADE 0.99.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

**LEGEND**

- ◆ Active Well Location
- Wellhead
- ▲ Abandoned Well
- ◆ Proposed Well Location
- (T) Tract Identification
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- Wv County Route
- Wv State Route

(◆) Denotes Location of Well on United States Topographic Maps



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 regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smit*  
L. L. S. 687



FILE NO: W2030 (BK 50-21)  
DRAWING NO:  
SCALE: 1"=1600'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: JUNE 25 20 18  
OPERATORS WELL NO: BLAKE 2H  
API WELL NO  
47 - 103 - 02911  
STATE COUNTY PERMITS

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1,298' WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
DISTRICT: Magnolia COUNTY: Wetzel

SURFACE OWNER: Gary Lemons ACREAGE: 69.12 ±  
ROYALTY OWNER: Gary Lemons, ET UX LEASE NO: 873356 ACREAGE: 122.65 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,786'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
Bridgeport, WV 26330 Bridgeport, WV 26330

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TOP HOLE AS-DRILLED



WELL OPERATOR: EQT Production Company  
 ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330

DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

LOCATION ELEVATION: 1,298 WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.5

DISTRICT: Magnolia COUNTY: Wetzel

SURFACE OWNER: Gary Lemons  
 ROYALTY OWNER: Gary Lemons, ET UX  
 LEASE NO: 87356 ACREAGE: 69.12 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION

PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,786'

FILE NO: W2030 (BK 50-21)  
 DRAWING NO: 18  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY: 1.2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

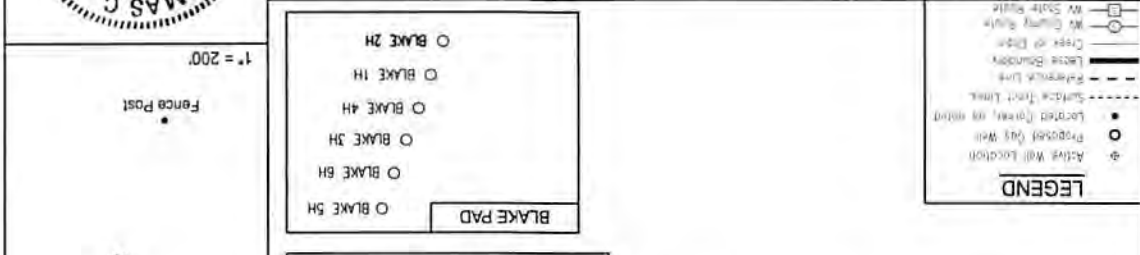
DATE: JUNE 25 20 18  
 OPERATORS WELL NO: BLAKE 2H  
 API WELL NO: 103 - 47 - 02911  
 STATE: WV COUNTY: PERMIT

**KEYSTONE CONSULTANTS, INC.**

L. L. S. 687

Department of Environmental Protection  
 the regulations issued and prescribed by the  
 and shows all the information required by law and  
 correct to the best of my knowledge and belief  
 I, the undersigned, hereby certify that this plot is

THOMAS C. SMIT  
 LICENSED LAND SURVEYOR  
 STATE OF WEST VIRGINIA  
 No. 687



Tract ID	Tract Map No	Parcel No	County	Owner
1	5	15	Wetzel	Gary Lemons
2	5	27	Wetzel	Gary Lemons
3	5	24	Wetzel	Gary Lemons
4	7	8	Wetzel	Gary Lemons
5	8	13	Wetzel	Gary Lemons
6	5	23	Wetzel	Franklin Bay Blaine
7	5	22	Wetzel	Sharon L. Barcoe
8	5	23	Wetzel	N/A
9	5	22	Wetzel	Sharon L. Barcoe
10	5	15	Wetzel	Sharon L. Barcoe
11	5	5	Wetzel	Sharon L. Barcoe
12	5	20	Wetzel	Ronald L. & Monette Schuchman
13	5	21	Wetzel	Ronald L. & Monette Schuchman
14	5	15	Wetzel	Bobbiann Cameron
15	5	14	Wetzel	Ronald L. & Monette Schuchman
16	5	13	Wetzel	Ronald L. & Monette Schuchman
17	11	26	Wetzel	Douglas S. & Linda C. Parish
18	3	3	Wetzel	Sharon Bercoe
19	5	17	Wetzel	Sharon L. Barcoe
20	5	25	Wetzel	Wetzel CO Full, Fin, & Frasier
21	5	28	Wetzel	Gary & Judy Ann Lemons
22	5	3	Wetzel	Gary Patrick Fitzsimmons
23	8	8	Wetzel	Danny L. & Orion Nell
24	8	14	Wetzel	Aaron Lloyd Lemons
25	8	25	Wetzel	Cathy M. Westfall ET AL
26	8	17	Wetzel	David L. & Ralph O. Smith
27	8	6	Wetzel	Albert Kohler III
28	6	6	Wetzel	George S. Schuchman
29	5	32	Wetzel	Franklin Bay Blaine
30	5	26	Wetzel	Stone Energy Corporation
31	5	26	Wetzel	Stone Energy Corporation
32	5	12	Wetzel	Stone Energy Corporation
33	5	27	Wetzel	David E. & Marie L. Schuchman
34	5	2	Wetzel	David E. & Marie L. Schuchman
35	5	11	Wetzel	Schuchman Cemetery
36	5	31	Wetzel	John William Burton
37	5	21	Wetzel	Stone Energy Corporation
38	5	23	Wetzel	Stone Energy Corporation
39	5	23	Wetzel	Stone Energy Corporation
40	9	8	Wetzel	Heather Leigh West
41	8	8	Wetzel	E. D. & Marsha A. Siderstricker
42	8	8	Wetzel	Farmer Dean Siderstricker
43	8	17	Wetzel	Tamara L. & Michael Siderberry
44	8	10	Wetzel	Loma A. Nell
45	8	16	Wetzel	Kathie Sr. & Sena Wolinski
46	10	10	Wetzel	David & Orion Nell
47	5	11	Wetzel	Ronald L. Schuchman
48	11	14	Wetzel	Conrad Forest Resources Co
49	11	14	Wetzel	Conrad Forest Resources Co
50	11	16	Wetzel	Henry J. Carter

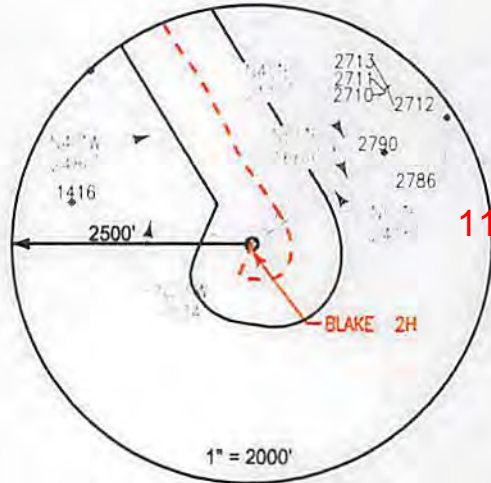


Blake 2H  
 Blake  
 EQT Production Company



**Blake 2H**  
**Blake**  
**EQT Production Company**

Tract ID.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	5	35	Wetzel	Magnolia	Gary Lemons	79.7
2	5	34	Wetzel	Magnolia	Gary Lemons	11.17
3	5	27	Wetzel	Magnolia	Gary Lemons	11
4	8	7	Wetzel	Magnolia	Gary Lemons	30.2
5	8	13	Wetzel	Magnolia	Gary Lemons	5.57
6	5	33	Wetzel	Magnolia	Franklin Ray Blake	108.47
7	5	22	Wetzel	Magnolia	Sharon L. Bearce	37.5
8	5	23	Wetzel	Magnolia	N/A	0.4
9	5	22.1	Wetzel	Magnolia	Sharon L. Bearce	0.1
10	5	16	Wetzel	Magnolia	Sharon L. Bearce	108.64
11	5	19	Wetzel	Magnolia	Ronald L. & Monette Schuppach	68.49
12	5	20	Wetzel	Magnolia	Ronald L. & Monette Schuppach	0.11
13	5	21	Wetzel	Magnolia	Ronald L. & Monette Schuppach	0.19
14	5	15	Wetzel	Magnolia	Bokulman Cemetery	0.39
15	5	14	Wetzel	Magnolia	Ronald Lee & Monette Schuppach	1.51
16	5	13	Wetzel	Magnolia	Ronald L. & Monette Schuppach	9.48
17	11	26	Wetzel	Proctor	Douglas S. & Linda C. Parish	46.98
18	5	3	Wetzel	Magnolia	Sharon Bearce	39.32
19	5	17	Wetzel	Magnolia	Sharon L. Bearce	48.32
20	5	18	Wetzel	Magnolia	Wetzel Co Fur, Fin, & Feather	72.25
21	5	28	Wetzel	Magnolia	Gary & Judy Ann Lemons	102.75
22	6	3	Wetzel	Magnolia	Gary Patrick Fitzsimmons	71.99
23	8	8	Wetzel	Magnolia	Danny L. & Orion F. Neff	42.88
24	8	15.3	Wetzel	Magnolia	David & Orion Neff	11.97
25	8	14	Wetzel	Magnolia	Aaron Lloyd Lemons	43.79
26	8	25	Wetzel	Magnolia	Cathy M. Westfall ETAL	57.68
27	8	12	Wetzel	Magnolia	David L. & Ralph O. Smith	58.15
28	8	6	Wetzel	Magnolia	Albert Kocher HRS	33.01
29	5	32	Wetzel	Magnolia	George S. Schuppach	37.5
30	5	26.2	Wetzel	Magnolia	Franklin Ray Blake	17.73
31	5	26	Wetzel	Magnolia	Stone Energy Corporation	39.95
32	5	25	Wetzel	Magnolia	Stone Energy Corporation	17.64
33	5	12	Wetzel	Magnolia	Melvin E. & Wilda G. Schuppach	36.87
34	5	2	Wetzel	Magnolia	David E. & Jeanie L. Schuppach	96.43
35	5	31.1	Wetzel	Magnolia	Schuppach Cemetery	0.27
36	5	31	Wetzel	Magnolia	John William Burton	66.56
37	5	26.1	Wetzel	Magnolia	Stone Energy Corporation	3.93
38	5	26.3	Wetzel	Magnolia	Stone Energy Corporation	10.95
39	5	25.1	Wetzel	Magnolia	Stone Energy Corporation	4.19
40	9	48	Wetzel	Magnolia	Heather Leigh Wetzel	6.32
41	8	8.1	Wetzel	Magnolia	E. D. & Marshie A. Sidenstricker	0.57
42	8	8.2	Wetzel	Magnolia	Earnest Dean Sidenstricker	0.58
43	8	17	Wetzel	Magnolia	Tamara L. & Michael Stansberry	1.23
44	8	16.2	Wetzel	Magnolia	Loma A. Neff	0.92
45	8	16	Wetzel	Magnolia	Keith Sr. & Sena Wojtaskiak	1.14
46	8	16.1	Wetzel	Magnolia	David & Orion Neff	0.10
47	5	1.1	Wetzel	Magnolia	Ronald L. Schuppach	90.33
48	11	13	Wetzel	Proctor	Coastal Forest Resources Co.	105.00
49	11	14	Wetzel	Proctor	Coastal Forest Resources Co.	22.00
50	11	16	Wetzel	Proctor	Nancy J. Garner	40.00



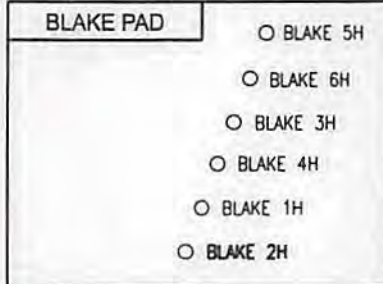
11/16/2018

**Notes:**  
**BLAKE 2H As-Drilled coordinates are**  
 NAD 27 N: 420,231.000 E: 1,634,321.000  
 NAD 27 Lat: 39.646520 Long: -80.798654  
 NAD 83 UTM N: 4,388,553.669 E: 517,290.640  
**BLAKE 2H As-Drilled KOP coordinates are**  
 NAD 27 N: 419,924.890 E: 1,634,195.270  
 NAD 27 Lat: 39.645675 Long: -80.799085  
 NAD 83 UTM N: 4,388,459.769 E: 517,253.889  
**BLAKE 2H As-Drilled Landing Point coordinates are**  
 NAD 27 N: 420,549.480 E: 1,634,607.460  
 NAD 27 Lat: 39.647406 Long: -80.797653  
 NAD 83 UTM N: 4,388,652.156 E: 517,376.296  
**BLAKE 2H As-Drilled Bottom Hole coordinates are**  
 NAD 27 N: 425,168.870 E: 1,631,739.950  
 NAD 27 Lat: 39.659972 Long: -80.808074  
 NAD 83 UTM N: 4,390,044.817 E: 516,479.235  
 West Virginia Coordinates system of 1927 (North Zone)  
 based upon Differential GPS Measurements  
 Plat orientation, Corner and well ties are based upon  
 the grid north meridian  
 Well location references are based upon the grid north  
 meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.



**LEGEND**

- ⊕ Active Well Location
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - - - Reference Line
- ===== Lease Boundary
- ~~~~~ Creek or Drain
- WV County Route
- WV State Route



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 regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smith*  
 L. L. S. 687



FILE NO: W2030 (BK 50-21)  
 DRAWING NO:  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY:  
 1:2500  
 PROVEN SOURCE OF ELEVATION:  
 NGS CORS Station

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

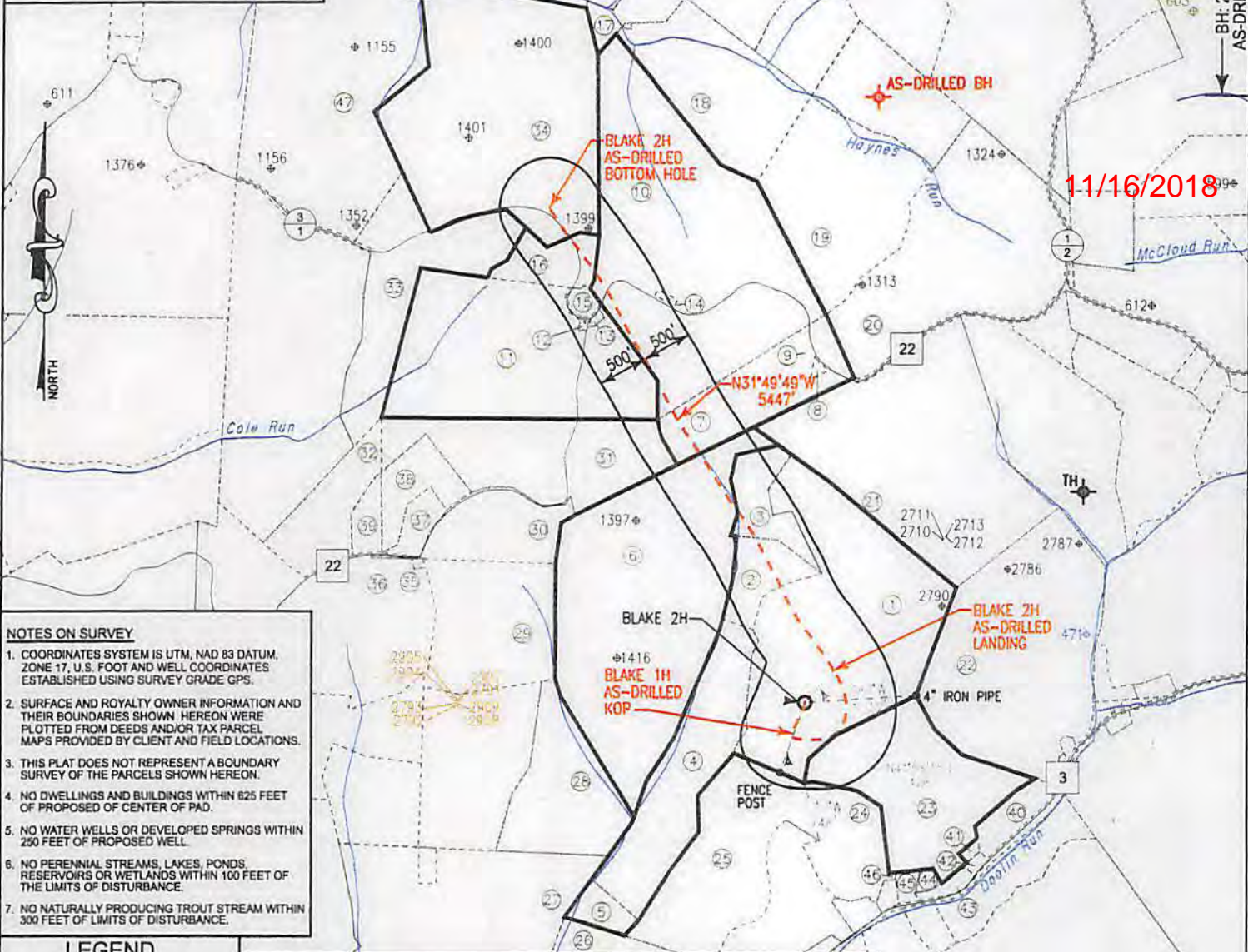
DATE: JUNE 25 20 18  
 OPERATORS WELL NO: BLAKE 2H  
 API WELL NO  
 47 - 103 - 02911  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION ELEVATION: 1,298' WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
 DISTRICT: Magnolia COUNTY: Wetzel  
 SURFACE OWNER: Gary Lemons ACREAGE: 69.12 ±  
 ROYALTY OWNER: Gary Lemons, ET UX LEASE NO: 873356 ACREAGE: 122.85 ±  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,786'  
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330 Bridgeport, WV 26330

TOP HOLE AS-DRILLED



**BLAKE 2H  
BLAKE  
EQT Production Company**



- NOTES ON SURVEY**
- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17. U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
  - SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
  - THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
  - NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
  - NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
  - NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
  - NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

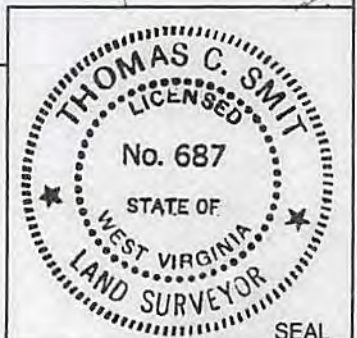
- LEGEND**
- Active Well Location
  - Permit issued
  - Abandoned Well
  - Plugged Well Location
  - Tract Identification
  - Proposed Gas Well
  - Located Corner, as noted
  - Surface Tract Lines
  - Reference Line
  - Lease Boundary
  - Creek or Drain
  - WV County Route
  - WV State Route
- ( ) Denotes Location of Well on United States Topographic Maps

Tract ID.	Lease No.	Acres	Owner
1&2&3	873356	122.65	Gary Lemons ET UX
6	873673	140	Ray Blake ET UX
7	873699	37.5	Sharon L. Bearce
10	873697	119.5	Sharon L. Bearce
11	873636	81	Schubbach's Valley Motor ET AL
23	873717	43	Danny L. Neff ET UX
34	873674	114	David E. Schubbach ET AL



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 regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smith*  
L. L. S. 687



FILE NO: W2030 (BK 50-21)  
DRAWING NO:  
SCALE: 1" = 1600'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
**OIL AND GAS DIVISION**

DATE: JUNE 25 20 18  
OPERATORS WELL NO: BLAKE 2H  
API WELL NO  
47 - 103 - 02911  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1,298' WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
DISTRICT: Magnolia COUNTY: Wetzel

SURFACE OWNER: Gary Lemons ACREAGE: 69.12 ±  
ROYALTY OWNER: Gary Lemons, ET UX LEASE NO: 873356 ACREAGE: 122.65 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,786'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
Bridgeport, WV 26330 Bridgeport, WV 26330

TOP HOLE AS-DRILLED



Well Operator's Report of Well Work



Well Number: BLAKE 2H (519171)

API: 47 - 103 - 02911

Submission:  Initial  Amended

Notes: Please note that Stone Energy Corp. was responsible for the Top Set drilling operations on this well & submitted an initial WR-35 (Attached) after those operations were concluded. EQT performed the lateral production drilling operations and subsequent stimulation operations detailed in this amended Report. Please further note that stages 10, 19 & 20 required re-perforation.

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Environmental Protection

**519171 47-103-02911-00-00 Perforations**

<b>Stage Number</b>	<b>Perforation Date</b>	<b>Top Perf Depth (ftKB)</b>	<b>Bottom Perf Depth (ftKB)</b>	<b>Number of Shots</b>	<b>Formation</b>
<b>Initiation Sleeve</b>	6/20/2018	12,806	12,923	10	MARCELLUS
<b>2</b>	6/25/2018	12,605	12,767	40	MARCELLUS
<b>3</b>	6/27/2018	12,405	12,567	40	MARCELLUS
<b>4</b>	6/27/2018	12,205	12,367	40	MARCELLUS
<b>5</b>	6/30/2018	12,005	12,167	40	MARCELLUS
<b>6</b>	6/30/2018	11,805	11,967	40	MARCELLUS
<b>7</b>	7/1/2018	11,605	11,767	40	MARCELLUS
<b>8</b>	7/2/2018	11,405	11,567	40	MARCELLUS
<b>9</b>	7/3/2018	11,205	11,367	40	MARCELLUS
<b>10</b>	7/5/2018	10,985	11,167	40	MARCELLUS
<b>11</b>	7/4/2018	10,785	10,947	40	MARCELLUS
<b>12</b>	7/5/2018	10,585	10,747	40	MARCELLUS
<b>13</b>	7/6/2018	10,385	10,547	40	MARCELLUS
<b>14</b>	7/6/2018	10,185	10,347	40	MARCELLUS
<b>15</b>	7/7/2018	9,985	10,147	40	MARCELLUS
<b>16</b>	7/7/2018	9,785	9,947	40	MARCELLUS
<b>17</b>	7/7/2018	9,585	9,747	40	MARCELLUS
<b>18</b>	7/8/2018	9,385	9,547	40	MARCELLUS
<b>19</b>	7/10/2018	9,165	9,347	40	MARCELLUS
<b>20</b>	7/12/2018	8,965	9,127	40	MARCELLUS
<b>21</b>	7/11/2018	8,765	8,927	40	MARCELLUS
<b>22</b>	7/13/2018	8,565	8,727	40	MARCELLUS
<b>23</b>	7/13/2018	8,365	8,527	40	MARCELLUS
<b>24</b>	7/14/2018	8,165	8,327	40	MARCELLUS
<b>25</b>	7/14/2018	7,965	8,127	40	MARCELLUS
<b>26</b>	7/15/2018	7,765	7,927	40	MARCELLUS
<b>27</b>	7/16/2018	7,565	7,727	40	MARCELLUS
<b>28</b>	7/17/2018	7,365	7,527	40	MARCELLUS

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**519171 47-103-02911-00-00 - Stimulated Stages**

<b>Stage Number</b>	<b>Stimulation Date</b>	<b>Ave Pump Rate (BPM)</b>	<b>Ave Treatment Pressure (PSI)</b>	<b>Max Breakdown Pressure (PSI)</b>	<b>ISIP (PSI)</b>	<b>Amount of Proppant (lbs)</b>	<b>Amount of Water (bbls)</b>	<b>Amount of Nitrogen/other (units)</b>
1	6/25/2018	81	8,324.00	9,276.00	4,471.00	270,780.00	5,315.40	0
2	6/26/2018	90	7,672.00	8,181.00	3,288.00	360,211.00	7,142.16	0
3	6/27/2018	95	7,920.00	9,092.00	3,316.00	450,864.00	7,783.90	0
4	6/30/2018	93	8,425.00	9,449.00	3,352.00	451,550.00	8,103.70	0
5	6/30/2018	94	8,111.00	8,607.00	3,703.00	451,660.00	7,905.50	0
6	7/1/2018	91	8,095.00	9,529.00	3,550.00	452,380.00	7,666.60	0
7	7/2/2018	95	8,169.00	8,835.00	3,829.00	450,180.00	7,744.00	0
8	7/3/2018	96	8,380.00	8,871.00	3,760.00	455,880.00	7,587.00	0
9	7/4/2018	90	7,939.00	8,420.00	3,829.00	450,620.00	7,658.25	0
10	7/5/2018	15	7,703.00	9,474.00	0.00	7,360.00	10,189.50	0
10	7/5/2018	1	8,872.00	9,493.00	0.00	6,776.00	0.00	0
11	7/6/2018	94	7,985.00	8,615.00	3,249.00	645,424.00	11,576.00	0
12	7/6/2018	93	8,149.00	9,135.00	3,614.00	450,880.00	7,672.00	0
13	7/7/2018	95	8,321.00	9,012.00	3,968.00	450,300.00	7,762.00	0
14	7/7/2018	93	7,747.00	8,341.00	4,017.00	450,800.00	7,783.90	0
15	7/7/2018	95	7,776.00	8,290.00	4,083.00	450,600.00	7,797.20	0
16	7/8/2018	96	8,103.00	8,884.00	3,816.00	450,580.00	7,763.00	0
17	7/9/2018	97	8,000.00	8,340.00	3,751.00	450,640.00	7,850.00	0
18	7/11/2018	95	8,032.00	8,885.00	3,744.00	450,300.00	7,575.00	0
19	7/12/2018	22	8,360.00	9,661.00	4,250.00	23,628.00	14,707.00	0
19	7/13/2018	70	7,983.00	9,354.00	3,918.00	450,760.00	0.00	0
20	7/13/2018	52	8,576.00	9,396.00	0.00	2,945.00	9,693.10	0
20	7/14/2018	32	8,466.00	9,709.00	0.00	8,249.00	0.00	0
21	7/14/2018	98	7,465.00	8,061.00	3,516.00	675,811.00	12,449.80	0
22	7/15/2018	97	7,727.00	8,253.00	3,868.00	445,700.00	7,805.10	0
23	7/16/2018	80	7,563.00	8,601.00	3,885.00	450,120.00	7,882.60	0
24	7/17/2018	87	7,363.00	7,812.00	3,382.00	450,081.00	7,787.90	0
25	7/18/2018	91	7,340.00	7,631.00	3,707.00	450,440.00	7,777.50	0
26	7/18/2018	90	7,053.00	7,555.00	3,277.00	450,820.00	7,613.00	0
27	7/19/2018	99	7,172.00	7,981.00	3,082.00	450,060.00	7,660.50	0
28	7/20/2018	87	7,217.00	7,560.00	3,501.00	447,340.00	7,438.30	0

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

API 47-103-02911 County WETZEL District MAGNOLIA  
Quad NEW MARTINSVILLE 7.5' Pad Name BLAKE (NMA12) Field/Pool Name N/A  
Farm name GARY LEMONS Well Number BLAKE 2H (519171)  
Operator (as registered with the OOG) EQT Production Company  
Address 625 LIBERTY AVENUE, SUITE 1700 City PITTSBURGH State PA Zip 15222

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey  
Top hole Northing 4,388,553.669 Easting 517,290.640  
Landing Point of Curve Northing 4,388,652.156 Easting 517,376.296  
Bottom Hole Northing 4,390,044.817 Easting 516,479.235

Elevation (ft) 1298 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) Synthetic Based Mud 13.2 ppg, aliphatic based non-aqueous drilling fluid, barium sulfate, calcium chloride, organophylic clay, quaternary ammonium clay, gilsonite, blended emulsifier, wetting agent, blended graphite, hydrated lime, calcium carbonate, ground walnut shells, fibrous cellulose.

Date permit issued 05/18/2018 Date drilling commenced 06/11/2018 Date drilling ceased 06/14/2018  
Date completion activities began 06/25/2018 Date completion activities ceased 07/20/2018  
Verbal plugging (Y/N) N Date permission granted N/A Granted by N/A

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 90 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1027 Cavern(s) encountered (Y/N) depths N  
Is coal being mined in area (Y/N) N

Reviewed by:

Reviewed by

DMH

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Environmental Protection

WR-35  
Rev. 8/23/13

API 47-103 - 02911 Farm name GARY LEMONS Well number BLAKE 2H (519171)

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade w/fl	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	8-3/4" & 8-1/2"	5 1/2"	12,923'	NEW	P-110 20#	N/A	N
Tubing							
Packer type and depth set							

Comment Details Production Cement job has calculated TOC of 3395' MD, which is greater than 500' TVD above the producing formation. No issues during cement job.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor							
Surface							
Coal							
Intermediate 1							
Intermediate 2							
Intermediate 3							
Production	Class A	1885	15.6	1.19	2243	3395'	8+
Tubing							

Drillers TD (ft) 12,927' MD Loggers TD (ft) N/A  
 Deepest formation penetrated MARCELLUS Plug back to (ft) N/A  
 Plug back procedure N/A

Kick off depth (ft) 5634' MD

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 \_\_\_\_\_

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PRODUCTION: ON SHOE TRACK AND EVERY JOINT TO 4189'

OCT 18 2013

WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS \_\_\_\_\_

WV Department of Environmental Protection

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS \_\_\_\_\_

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_





API 47- 103 - 02911 Farm name GARY LEMONS Well number BLAKE 2H (519171)

Drilling Contractor \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Logging Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Cementing Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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11/16/2018

Final Formations Well # 519171 (Blake 2H) API # 47-103-02911				
Formation Name	Drill Top MD (ftKB)	Drill Top (TVD) (ftKB)	Drill Btm MD (ftKB)	Drill Btm (TVD) (ftKB)
SAND/SHALE	3060	3059	6807	6584
SONYEA	6807	6584	6929	6669
MIDDLESEX	6929	6669	6968	6694
GENESEE	6968	6694	7066	6750
GENESEO	7066	6750	7110	6773
TULLY	7110	6773	7156	6795
HAMILTON	7156	6795	7359	6851
MARCELLUS	7359	6851	12927	6863

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

API 47-103-02911 County Wetzel District Magnolia  
Quad New Martinsville Pad Name Blake Field/Pool Name Mary  
Farm name Lemons, Gary 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 4,388,554 Easting 517,291  
Landing Point of Curve Northing TBD - Only Top Hole Drilled Easting TBD - Only Top Hole Drilled  
Bottom Hole Northing TBD - Only Top Hole Drilled Easting TBD - Only Top Hole Drilled

Elevation (ft) 1293 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)  
Air Drilling additives: air, fresh water, soda ash, KCl, clay guard, PAC, foamer, corrosion inhibitor

Date permit issued 9/25/2013 Date drilling commenced 2/8/2014 Date drilling ceased 2/13/2014  
Date completion activities began Not yet completed Date completion activities ceased \_\_\_\_\_  
Verbal plugging (Y/N) N Date permission granted \_\_\_\_\_ Granted by \_\_\_\_\_

Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 90 Open mine(s) (Y/N) depths N  
Salt water depth(s) ft None Reported Void(s) encountered (Y/N) depths N  
Coal depth(s) ft 1027 Cavern(s) encountered (Y/N) depths N

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

**APPROVED**

NAME: [Signature]  
DATE: 5-25-17

Reviewed by: [Signature]

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WV Department of Environmental Protection

WR-35  
Rev. 8/23/13

API 47-103 02911 Farm name Lemons, Gary 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"	90' KB / 80' GL	New	LS - 94 ppf		N - GTS
Surface	17.5"	13.375"	1300' KB / 1280' GL	New	J55 - 54.5 ppf	100' & 200'	Y - CTS
Coal	17.5"	13.375"	1300' KB / 1280' GL	New	J55 - 54.5 ppf	100' & 200'	Y - CTS
Intermediate 1	12.25"	9.625"	2669' KB / 2659' GL	New	J55 - 36 ppf		Y - CTS
Intermediate 2							
Intermediate 3							
Production							
Tubing							
Packer type and depth set		13.375" x 9.625" annulus inflatable packer set @ 1186' KB					

Comment Details Circulated 25 bbls cement to surface on the 13.375" casing string. Circulated 30 bbls cement to surface on the 9.625" casing string.

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft <sup>3</sup> /sks)	Volume (ft <sup>3</sup> )	Cement Top (MD)	WOC (hrs)
Conductor	Type 1	34	15.6	1.18	40	Surface	24+
Surface	Class A	940	15.6	1.20	1128	Surface	8
Coal	Class A	940	15.6	1.20	1128	Surface	8
Intermediate 1	Class A	Lead: 700 / Tail: 230	Lead: 15.6 / Tail: 15.6	Lead: 1.22 / Tail: 1.21	Lead: 854 / Tail: 278	Surface	8
Intermediate 2							
Intermediate 3							
Production							
Tubing							

Drillers TD (ft) 5721 MD / 5699' TVD Loggers TD (ft) N/A  
 Deepest formation penetrated Devonian Shale Plug back to (ft) \_\_\_\_\_  
 Plug back procedure \_\_\_\_\_

Kick off depth (ft) TBD - only top hole drilled

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 has bow spring centralizers placed on

joints 2, 6, 10, 14, 18, 22, 26 and 30. Intermediate casing has bow spring centralizers placed on joints 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56 and 60.

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WAS WELL COMPLETED AS SHOT HOLE  Yes  No DETAILS OCT 18 2018

WAS WELL COMPLETED OPEN HOLE?  Yes  No DETAILS WV Department of Environmental Protection

WERE TRACERS USED  Yes  No TYPE OF TRACER(S) USED \_\_\_\_\_

API 47- 103 - 02911 Farm name Lemons, Gary Well number #2H

**PERFORATION RECORD**

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)

Please insert additional pages as applicable.

**STIMULATION INFORMATION PER STAGE**

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)

Please insert additional pages as applicable.

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Rev. 8/23/13

API 47- 103 - 02911 Farm name Lemons, Gary Well number #2H

PRODUCING FORMATION(S)	DEPTHS
Not yet completed	TVD MD
Not yet producing	

Please insert additional pages as applicable.

GAS TEST  Build up  Drawdown  Open Flow OIL TEST  Flow  Pump  
 SHUT-IN PRESSURE Surface \_\_\_\_\_ psi Bottom Hole \_\_\_\_\_ psi DURATION OF TEST \_\_\_\_\_ hrs  
 OPEN FLOW Gas \_\_\_\_\_ mcfpd Oil \_\_\_\_\_ bpd NGL \_\_\_\_\_ bpd Water \_\_\_\_\_ bpd GAS MEASURED BY  
 Estimated  Orifice  Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H <sub>2</sub> S, ETC)
Sandstone & Shale	0	1027	0	1027	Fresh water @ 90'
Coal	1027	1034	1027	1034	No salt water reported
Sandstone & Shale	1027	2216	1027	2216	
Big Lime	2216	2331	2216	2331	
Big Injun	2331	2416	2331	2416	
Sandstone & Shale	2416	2786	2416	2786	
Berea Sandstone	2786	2795	2786	2795	
Shale	2795	3036	2795	3036	
Gordon	3036	3060	3036	3060	
Undiff Devonian Shale	3060	5699	3060	5721	

Please insert additional pages as applicable.

Drilling Contractor Highlands (top hole)  
Address 900 Virginia Street - East City Charleston State WV Zip 25301

Logging Company Scientific Drilling (top hole)  
Address 124 Vista Drive City Charleroi State PA Zip 15022

Cementing Company Halliburton (top hole)  
Address 121 Champion Way City Canonsburg State PA Zip 15317

Stimulating Company \_\_\_\_\_  
Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please insert additional pages as applicable.

Completed by Greg Zofchak Telephone 304-225-1600  
Signature *[Signature]* Title Drilling Engineer Date 3/6/2017

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





## Stone Energy

Mary Prospect

Blake Pad

2H

OH

Design: As Drilled

## Standard Survey Report

20 February, 2014



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Project: Mary Prospect  
 Site: Blake Pad  
 Well: 2H  
 Wellbore: OH  
 Design: As Drilled



WELL DETAILS: 2H

REFERENCE INFORMATION

PROJECT DETAILS: Mary Prospect

+N-S	+E-W	Nothing	Ground Level:	1293.00			
0.00	0.00	420231.00	Eastng	1634321.00	Latitude	Longitude	
					39° 38' 47.472 N	89° 47' 55.154 W	

Co-ordinate (N/E) Reference: Well 2H, Grid North  
 Vertical (TVD) Reference: GL 1293' & KB 10' @ 1303.00ft (Highlands 2)  
 Section (VS) Reference: Slot - (0.00N, 0.00E)  
 Measured Depth Reference: GL 1293' & KB 10' @ 1303.00ft (Highlands 2)  
 Calculation Method: Minimum Curvature

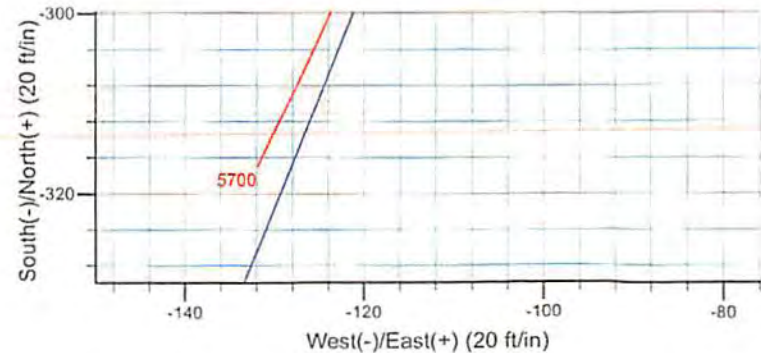
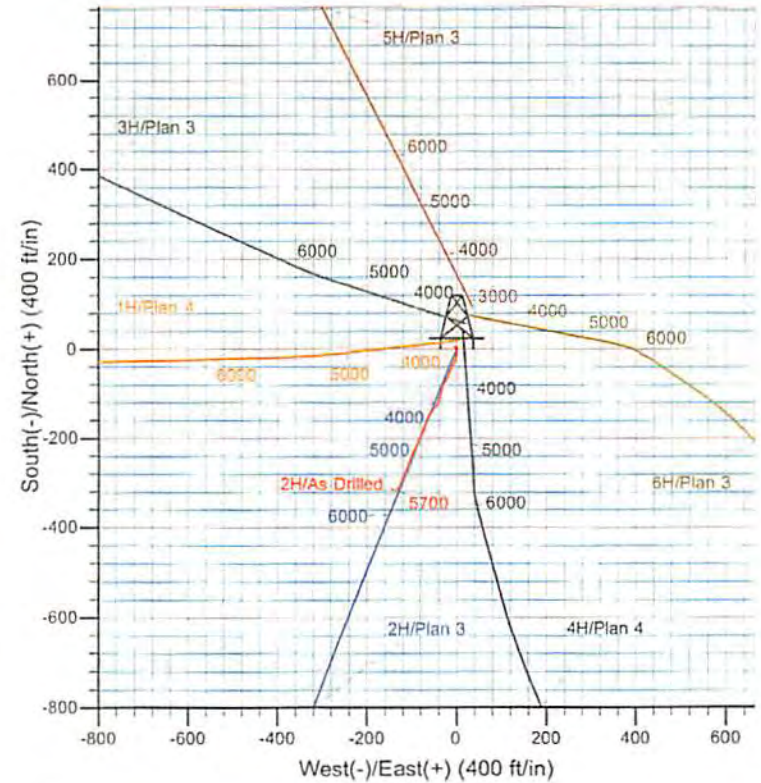
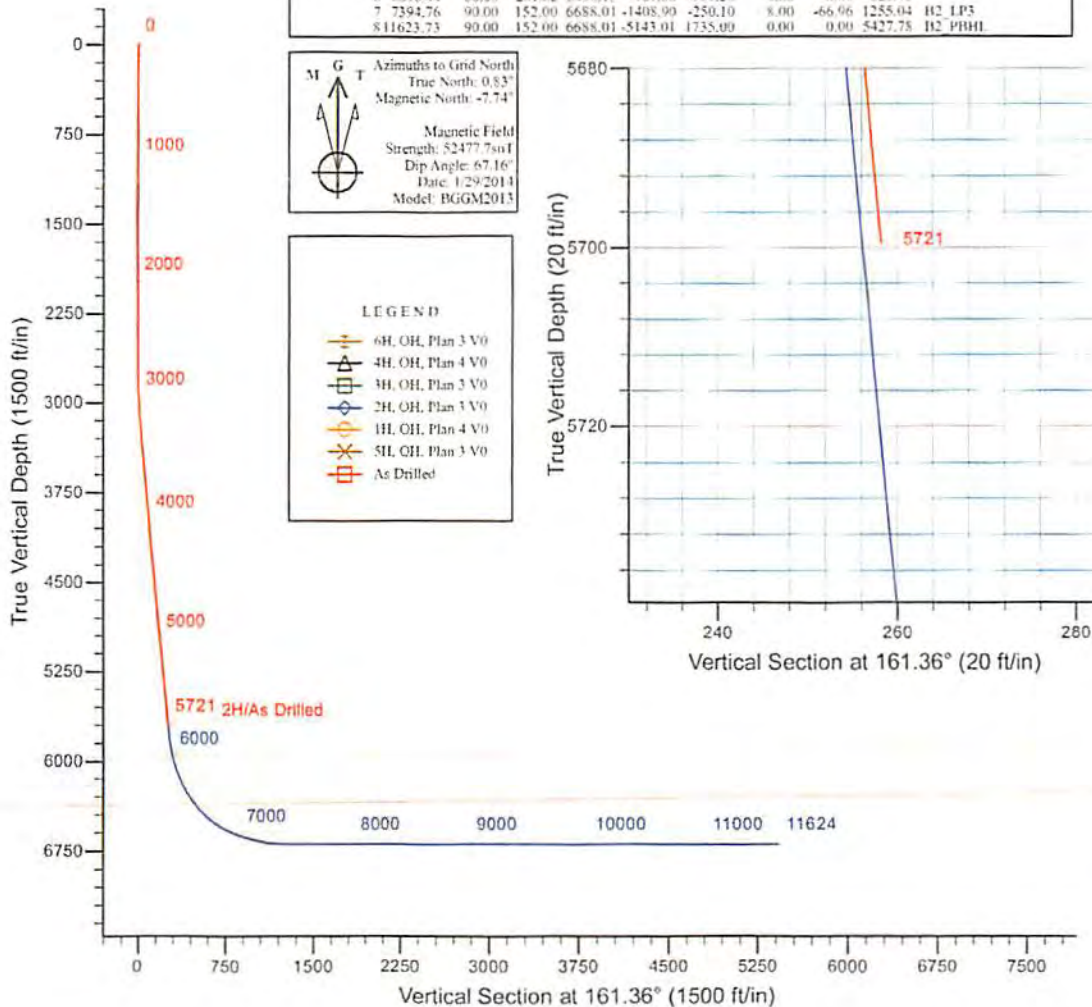
Geodetic System: US State Plane 1927 (Exact solution)  
 Datum: NAD 1927 (NADCON CONUS)  
 Ellipsoid: Clarke 1866  
 Zone: West Virginia North -4701  
 System Datum: Mean Sea Level

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSec	Target	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2600.01	0.00	0.00	2600.01	0.00	0.00	0.00	0.00	0.00	0.00	
3	3300.04	7.00	292.00	3298.27	-39.69	-16.00	1.00	292.00	32.41		
4	5802.71	7.00	292.00	5782.32	-322.39	-130.25	0.00	0.00	263.84		
5	6686.01	60.00	201.62	6492.92	-759.48	-303.87	6.00	-0.42	622.50		
6	6696.44	60.00	201.62	6498.13	-767.88	-307.20	0.00	0.00	629.40		
7	7394.76	90.00	152.00	6688.01	-1408.90	-250.10	8.00	-66.96	1255.04	B2 LP3	
8	11623.73	90.00	152.00	6688.01	-5143.01	1735.00	0.00	0.00	5427.75	B2 PBHL	

Azimuths to Grid North  
 True North: 0.83°  
 Magnetic North: -7.74°  
 Magnetic Field  
 Strength: 52477.75uT  
 Dip Angle: 67.16°  
 Date: 1/29/2014  
 Model: BGGM2013

LEGEND

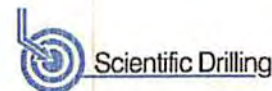
- 6H, OH, Plan 3 V0
- 4H, OH, Plan 4 V0
- 3H, OH, Plan 3 V0
- 2H, OH, Plan 3 V0
- 1H, OH, Plan 4 V0
- 5H, OH, Plan 3 V0
- As Drilled







Scientific Drilling  
Survey Report



Company:	Stone Energy	Local Co-ordinate Reference:	Well 2H
Project:	Mary Prospect	TVD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Site:	Blake Pad	MD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Well:	2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Northeast District

Project	Mary Prospect, West Virginia		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	West Virginia North 4701		

Site	Blake Pad				
Site Position:		Northing:	420,250.00 usft	Latitude:	39° 38' 47.661 N
From:	Map	Easting:	1,634,328.00 usft	Longitude:	80° 47' 55.068 W
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.83 °

Well	2H					
Well Position	+N/-S	0.00 ft	Northing:	420,231.00 usft	Latitude:	39° 38' 47.472 N
	+E/-W	0.00 ft	Easting:	1,634,321.00 usft	Longitude:	80° 47' 55.154 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	1,293.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	11/14/2013	-8.56	67.18	52,505
	BGGM2013	1/29/2014	-8.57	67.16	52,478

Design	As Drilled				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00		161.36

Survey Program	Date	2/20/2014			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
10.00	3,400.00	Survey 1 - SDI Gyro (OH)	SDI Standard Keeper 103	SDI Standard Wireline Keeper ver 1.0.3	
3,500.00	5,721.00	Survey 2 - SDI MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10.00	0.00	360.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Ground Level</b>									
100.00	0.16	330.46	100.00	0.11	-0.06	-0.12	0.18	0.18	0.00
<b>First SDI Gyro Survey</b>									
200.00	0.22	331.36	200.00	0.40	-0.22	-0.45	0.05	0.05	0.90
300.00	0.18	325.88	300.00	0.70	-0.40	-0.79	0.04	-0.04	-5.48
400.00	0.28	333.96	400.00	1.05	-0.60	-1.18	0.10	0.10	8.08

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Survey Report



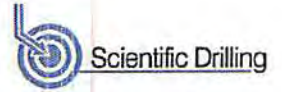
Company:	Stone Energy	Local Co-ordinate Reference:	Well 2H
Project:	Mary Prospect	TVD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Site:	Blake Pad	MD Reference:	GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
Well:	2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Northeast District

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
500.00	0.11	324.89	500.00	1.35	-0.76	-1.52	0.17	-0.17	-9.07	
600.00	0.12	316.71	600.00	1.50	-0.89	-1.71	0.02	0.01	-8.18	
700.00	0.30	306.16	700.00	1.73	-1.17	-2.01	0.18	0.18	-10.55	
800.00	0.23	309.32	800.00	2.01	-1.54	-2.40	0.07	-0.07	3.16	
900.00	0.20	311.68	899.99	2.26	-1.82	-2.72	0.03	-0.03	2.36	
1,000.00	0.16	313.04	999.99	2.47	-2.06	-2.99	0.04	-0.04	1.36	
1,100.00	0.22	313.68	1,099.99	2.70	-2.30	-3.29	0.06	0.06	0.64	
1,200.00	0.22	321.09	1,199.99	2.98	-2.56	-3.64	0.03	0.00	7.41	
1,300.00	0.21	319.16	1,299.99	3.27	-2.80	-3.99	0.01	-0.01	-1.93	
1,400.00	0.19	330.98	1,399.99	3.55	-3.00	-4.32	0.05	-0.02	11.82	
1,500.00	0.31	337.69	1,499.99	3.94	-3.18	-4.75	0.12	0.12	6.71	
1,600.00	0.30	346.62	1,599.99	4.45	-3.34	-5.28	0.05	-0.01	8.93	
1,700.00	0.38	354.71	1,699.99	5.03	-3.43	-5.87	0.09	0.08	6.09	
1,800.00	0.38	359.62	1,799.99	5.70	-3.47	-6.51	0.03	0.00	4.91	
1,900.00	0.26	5.22	1,899.98	6.25	-3.45	-7.03	0.12	-0.12	5.60	
2,000.00	0.17	65.50	1,999.98	6.54	-3.29	-7.25	0.23	-0.09	60.28	
2,100.00	0.48	121.65	2,099.98	6.38	-2.80	-6.94	0.41	0.31	56.15	
2,200.00	0.52	124.84	2,199.98	5.90	-2.07	-6.26	0.05	0.04	3.19	
2,300.00	0.56	129.39	2,299.97	5.33	-1.32	-5.48	0.06	0.04	4.55	
2,400.00	0.67	136.80	2,399.97	4.60	-0.54	-4.53	0.14	0.11	7.41	
2,500.00	0.53	138.20	2,499.96	3.83	0.16	-3.57	0.14	-0.14	1.40	
2,600.00	0.42	141.40	2,599.96	3.20	0.70	-2.80	0.11	-0.11	3.20	
2,700.00	0.48	153.44	2,699.96	2.53	1.12	-2.04	0.11	0.05	12.04	
2,800.00	2.10	178.45	2,799.93	0.33	1.35	0.12	1.68	1.62	25.01	
2,900.00	3.60	183.48	2,899.80	-4.64	1.21	4.78	1.52	1.50	5.03	
3,000.00	4.27	186.22	2,999.56	-11.47	0.62	11.07	0.70	0.67	2.74	
3,100.00	4.36	196.20	3,099.28	-18.82	-0.84	17.57	0.76	0.09	9.98	
3,200.00	5.26	203.40	3,198.93	-26.68	-3.73	24.09	1.08	0.90	7.20	
3,300.00	7.13	204.74	3,298.34	-36.52	-8.14	32.01	1.88	1.87	1.34	
3,400.00	7.66	204.49	3,397.51	-48.23	-13.50	41.38	0.53	0.53	-0.25	
<b>Last SDI Gyro Survey</b>										
3,500.00	6.56	201.78	3,496.74	-59.60	-18.39	50.59	1.15	-1.10	-2.71	
<b>First SDI MWD Survey</b>										
3,556.00	6.59	210.34	3,552.37	-65.34	-21.20	55.14	1.75	0.05	15.29	
3,651.00	6.63	210.76	3,646.74	-74.76	-26.75	62.28	0.07	0.04	0.44	
3,745.00	7.34	197.27	3,740.05	-85.16	-31.31	70.68	1.90	0.76	-14.35	
3,839.00	8.30	189.97	3,833.18	-97.57	-34.27	81.50	1.47	1.02	-7.77	
3,933.00	7.09	195.52	3,926.33	-109.84	-37.00	92.26	1.51	-1.29	5.90	
4,028.00	6.74	207.75	4,020.64	-120.43	-41.16	100.95	1.59	-0.37	12.87	
4,122.00	6.78	218.67	4,113.99	-129.64	-47.20	107.75	1.37	0.04	11.62	
4,216.00	7.62	218.86	4,207.25	-138.83	-54.58	114.10	0.89	0.89	0.20	
4,309.00	8.36	207.59	4,299.35	-149.62	-61.58	122.09	1.86	0.80	-12.12	
4,403.00	7.15	203.89	4,392.49	-161.03	-67.11	131.13	1.39	-1.29	-3.94	
4,497.00	6.94	196.05	4,485.79	-171.83	-71.05	140.11	1.05	-0.22	-8.34	





Scientific Drilling  
Survey Report



<b>Company:</b> Stone Energy	<b>Local Co-ordinate Reference:</b> Well 2H
<b>Project:</b> Mary Prospect	<b>TVD Reference:</b> GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
<b>Site:</b> Blake Pad	<b>MD Reference:</b> GL 1293' & KB 10' @ 1303.00ft (Highlands 2)
<b>Well:</b> 2H	<b>North Reference:</b> Grid
<b>Wellbore:</b> OH	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> As Drilled	<b>Database:</b> Northeast District

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,590.00	6.55	204.47	4,578.14	-182.06	-74.80	148.60	1.14	-0.42	9.05
4,684.00	6.22	201.85	4,671.56	-191.67	-78.92	156.39	0.47	-0.35	-2.79
4,778.00	6.86	203.15	4,764.95	-201.56	-83.02	164.44	0.70	0.68	1.38
4,873.00	7.20	199.73	4,859.24	-212.38	-87.26	173.34	0.57	0.36	-3.60
4,967.00	7.57	207.97	4,952.46	-223.39	-92.15	182.21	1.19	0.39	8.77
5,061.00	7.86	204.91	5,045.61	-234.69	-97.76	191.13	0.53	0.31	-3.26
5,155.00	8.77	199.50	5,138.62	-247.27	-102.86	201.42	1.28	0.97	-5.76
5,249.00	7.68	201.71	5,231.65	-259.86	-107.58	211.84	1.21	-1.16	2.35
5,344.00	7.82	198.32	5,325.78	-271.90	-111.96	221.84	0.50	0.15	-3.57
5,438.00	7.31	204.37	5,418.97	-283.42	-116.44	231.33	1.01	-0.54	6.44
5,532.00	7.69	202.79	5,512.16	-294.66	-121.34	240.42	0.46	0.40	-1.68
5,626.00	7.43	206.04	5,605.35	-305.92	-126.44	249.45	0.53	-0.28	3.46
<b>Last SDI MWD Survey</b>									
5,721.00	7.43	206.04	5,699.55	-316.96	-131.84	258.19	0.00	0.00	0.00
<b>Projection to Bit</b>									

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
10.00	10.00	0.00	0.00	Ground Level
100.00	100.00	0.11	-0.06	First SDI Gyro Survey
3,400.00	3,397.51	-48.23	-13.50	Last SDI Gyro Survey
3,500.00	3,496.74	-59.60	-18.39	First SDI MWD Survey
5,626.00	5,605.35	-305.92	-126.44	Last SDI MWD Survey
5,721.00	5,699.55	-316.96	-131.84	Projection to Bit

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert West Virginia SP, Northern Zone (4701), US feet	Software System	WellArchitect® 5.1
North Reference	Grid	User	Jacostec
Scale	0.999941	Report Generated	6/21/2018 at 11:16:47 AM
Convergence at slot	0.83° West	Database/Source file	WA_MPL_EASTERNUS_Defn/Blake_2H_519171_AWP_Proj_12927_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-19.21	-6.29	1634321.71	420230.79	39°38'47.470"N	80°47'55.145"W
Facility Reference Pt			1634328.00	420250.00	39°38'47.661"N	80°47'55.068"W
Field Reference Pt			1688243.35	385255.46	39°33'08.944"N	80°36'20.337"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Precision 539 (RKB) to Facility Vertical Datum	1316.00ft
Horizontal Reference Pt	Slot	Precision 539 (RKB) to Mean Sea Level	1316.00ft
Vertical Reference Pt	Precision 539 (RKB)	Precision 539 (RKB) to Mud Line at Slot (Slot 2H)	18.00ft
MD Reference Pt	Precision 539 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	332.50°

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Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWP
Facility	Blake Pad		

WELLPATH DATA (160 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
0.00†	0.000	330.460	0.00	-1316.00	0.00	0.00	0.00	0.00	0.00	0.00
18.00	0.000	330.460	18.00	-1298.00	0.00	0.00	0.00	0.00	0.00	0.00
108.00	0.160	330.460	108.00	-1208.00	0.13	0.11	-0.06	0.18	0.18	-32.82
208.00	0.220	331.360	208.00	-1108.00	0.46	0.40	-0.22	0.06	0.06	0.90
308.00	0.180	325.880	308.00	-1008.00	0.81	0.70	-0.40	0.04	-0.04	-5.48
408.00	0.280	333.960	408.00	-908.00	1.21	1.05	-0.60	0.10	0.10	8.08
508.00	0.110	324.890	508.00	-808.00	1.54	1.35	-0.76	0.17	-0.17	-9.07
608.00	0.120	316.710	608.00	-708.00	1.74	1.50	-0.89	0.02	0.01	-8.18
708.00	0.300	306.160	708.00	-608.00	2.08	1.73	-1.17	0.18	0.18	-10.55
808.00	0.230	309.320	808.00	-508.00	2.50	2.01	-1.54	0.07	-0.07	3.16
908.00	0.200	311.680	907.99	-408.01	2.84	2.26	-1.82	0.03	-0.03	2.36
1008.00	0.160	313.040	1007.99	-308.01	3.14	2.47	-2.06	0.04	-0.04	1.36
1108.00	0.220	313.680	1107.99	-208.01	3.45	2.70	-2.30	0.06	0.06	0.64
1208.00	0.220	321.090	1207.99	-108.01	3.82	2.98	-2.56	0.03	0.00	7.41
1308.00	0.210	319.160	1307.99	-8.01	4.19	3.27	-2.80	0.01	-0.01	-1.93
1408.00	0.190	330.980	1407.99	91.99	4.53	3.55	-3.00	0.05	-0.02	11.82
1508.00	0.310	337.690	1507.99	191.99	4.97	3.94	-3.18	0.12	0.12	6.71
1608.00	0.300	346.620	1607.99	291.99	5.49	4.45	-3.34	0.05	-0.01	8.93
1708.00	0.380	354.710	1707.99	391.99	6.05	5.03	-3.43	0.09	0.08	8.09
1808.00	0.380	359.620	1807.99	491.99	6.65	5.70	-3.47	0.03	0.00	4.91
1908.00	0.260	5.220	1907.98	591.98	7.14	6.25	-3.45	0.12	-0.12	5.60
2008.00	0.170	65.500	2007.98	691.98	7.32	6.54	-3.29	0.23	-0.09	60.28
2108.00	0.480	121.650	2107.98	791.98	6.95	6.38	-2.80	0.41	0.31	56.15
2208.00	0.520	124.840	2207.98	891.98	6.19	5.90	-2.07	0.05	0.04	3.19
2308.00	0.560	129.390	2307.97	991.97	5.34	5.33	-1.32	0.06	0.04	4.55
2408.00	0.670	136.800	2407.97	1091.97	4.33	4.60	-0.54	0.14	0.11	7.41
2508.00	0.530	138.200	2507.96	1191.96	3.32	3.83	0.16	0.14	-0.14	1.40
2607.99	0.420	141.400	2607.95	1291.95	2.51	3.20	0.70	0.11	-0.11	3.20
2707.99	0.480	153.440	2707.95	1391.95	1.73	2.53	1.12	0.11	0.06	12.04
2807.99	2.100	178.450	2807.92	1491.92	-0.33	0.33	1.35	1.68	1.62	25.01

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
2907.99	3.600	183.480	2907.79	1591.79	-4.67	-4.64	1.21	1.52	1.50	5.03
3007.99	4.270	186.220	3007.55	1691.55	-10.46	-11.47	0.62	0.70	0.67	2.74
3107.99	4.360	196.200	3107.27	1791.27	-16.31	-18.82	-0.84	0.76	0.09	9.98
3207.99	5.260	203.400	3208.92	1890.92	-21.95	-26.68	-3.73	1.08	0.90	7.20
3307.99	7.130	204.740	3306.33	1990.33	-28.64	-36.52	-8.14	1.88	1.87	1.34
3407.99	7.660	204.490	3405.50	2089.50	-36.54	-48.23	-13.50	0.53	0.53	-0.25
3507.99	6.560	201.780	3504.73	2188.73	-44.37	-59.60	-18.39	1.15	-1.10	-2.71
3563.99	6.590	210.340	3560.36	2244.36	-48.17	-65.34	-21.20	1.75	0.05	15.29
3658.99	6.630	210.760	3654.73	2338.73	-53.96	-74.76	-26.76	0.07	0.04	0.44
3752.99	7.340	197.270	3748.04	2432.04	-61.07	-85.16	-31.31	1.90	0.76	-14.35
3846.99	8.300	189.970	3841.17	2525.17	-70.72	-97.57	-34.27	1.47	1.02	-7.77
3940.99	7.090	195.520	3934.32	2618.32	-80.35	-109.84	-37.00	1.51	-1.29	5.90
4035.99	6.740	207.750	4028.63	2712.63	-87.81	-120.43	-41.16	1.59	-0.37	12.87
4129.99	6.780	218.670	4121.98	2805.98	-93.20	-129.64	-47.20	1.37	0.04	11.62
4223.99	7.620	218.860	4215.24	2899.24	-97.94	-138.83	-54.58	0.89	0.89	0.20
4316.99	8.360	207.590	4307.34	2991.34	-104.28	-149.62	-61.58	1.86	0.80	-12.12
4410.99	7.150	203.890	4400.48	3084.48	-111.84	-161.03	-67.11	1.39	-1.29	-3.94
4504.99	6.940	196.050	4493.78	3177.78	-119.61	-171.83	-71.05	1.05	-0.22	-8.34
4597.99	6.550	204.470	4586.13	3270.13	-126.95	-182.06	-74.80	1.14	-0.42	9.05
4691.99	6.220	201.850	4679.55	3363.55	-133.57	-191.67	-78.92	0.47	-0.35	-2.79
4785.99	6.860	203.150	4772.94	3456.94	-140.45	-201.56	-83.02	0.70	0.68	1.38
4880.99	7.200	199.730	4867.22	3551.22	-148.09	-212.38	-87.26	0.57	0.36	-3.60
4974.99	7.570	207.970	4960.45	3644.45	-155.60	-223.39	-92.15	1.19	0.39	8.77
5068.99	7.860	204.910	5053.60	3737.60	-163.03	-234.69	-97.76	0.53	0.31	-3.26
5162.99	8.770	199.500	5146.61	3830.61	-171.84	-247.27	-102.86	1.28	0.97	-5.76
5256.99	7.680	201.710	5239.64	3923.64	-180.83	-259.86	-107.58	1.21	-1.16	2.35
5351.99	7.820	198.320	5333.77	4017.77	-189.48	-271.90	-111.96	0.50	0.15	-3.57
5445.99	7.310	204.370	5426.96	4110.96	-197.63	-283.42	-116.44	1.01	-0.54	6.44
5539.99	7.690	202.790	5520.15	4204.15	-205.34	-294.66	-121.34	0.46	0.40	-1.68
5633.99	7.430	206.040	5613.34	4297.34	-212.97	-305.92	-126.44	0.53	-0.28	3.46

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Build Rate ["/100ft]	Turn Rate ["/100ft]
5731.00	7.350	204.570	5709.54	4393.54	-220.51	-317.20	-131.78	0.21	-0.08	-1.52
5775.00	7.580	195.730	5753.17	4437.17	-224.36	-322.55	-133.73	2.66	0.52	-20.09
5820.00	10.400	173.570	5797.62	4481.62	-230.31	-329.45	-134.08	9.82	6.27	-49.24
5865.00	12.280	142.660	5841.78	4525.78	-238.83	-337.30	-130.72	13.94	4.18	-68.69
5910.00	15.340	121.620	5885.51	4569.51	-248.66	-344.23	-122.74	12.96	6.80	-46.76
5955.00	18.300	110.530	5928.59	4612.59	-259.02	-349.83	-111.05	9.67	6.58	-24.64
5999.00	22.350	104.180	5969.84	4653.84	-269.73	-354.30	-96.47	10.47	9.20	-14.43
6044.00	27.770	98.730	6010.60	4694.60	-281.62	-357.99	-77.79	13.08	12.04	-12.11
6089.00	32.420	94.550	6049.53	4733.53	-294.23	-360.54	-55.39	11.33	10.33	-9.29
6134.00	37.220	92.920	6086.46	4770.46	-307.53	-362.20	-29.76	10.86	10.67	-3.62
6178.00	42.960	92.620	6120.11	4804.11	-321.80	-363.56	-1.47	13.05	13.05	-0.68
6268.00	45.790	91.780	6184.43	4868.43	-352.97	-365.96	61.42	3.21	3.14	-0.93
6357.00	45.760	92.330	6246.51	4930.51	-384.43	-368.25	125.16	0.44	-0.03	0.62
6402.00	44.760	89.370	6278.18	4962.18	-399.61	-368.73	157.11	5.17	-2.22	-6.58
6447.00	42.750	82.000	6310.71	4994.71	-411.88	-366.43	188.10	12.17	-4.47	-16.38
6492.00	41.090	74.070	6344.21	5028.21	-419.95	-360.24	217.47	12.33	-3.69	-17.62
6537.00	39.620	67.440	6378.52	5062.52	-424.16	-350.67	244.95	10.08	-3.27	-14.73
6581.00	39.380	59.440	6412.49	5096.49	-424.62	-338.19	269.94	11.57	-0.55	-18.18
6626.00	39.290	55.010	6447.31	5131.31	-422.00	-322.75	293.91	6.24	-0.20	-9.84
6671.00	39.840	50.130	6482.01	5166.01	-417.05	-305.34	316.65	7.01	1.22	-10.84
6715.00	40.580	42.190	6515.63	5199.63	-409.06	-285.69	337.10	11.76	1.68	-18.05
6760.00	41.710	34.910	6549.54	5233.54	-397.04	-262.55	355.50	10.93	2.51	-16.18
6805.00	43.040	28.720	6582.79	5266.79	-381.56	-236.80	371.46	9.73	2.96	-13.76
6850.00	44.610	22.250	6615.27	5299.27	-362.80	-208.69	384.83	10.55	3.49	-14.38
6895.00	46.920	15.970	6646.68	5330.68	-340.65	-178.24	395.34	11.24	5.13	-13.96
6940.00	50.330	11.320	6676.43	5360.43	-315.22	-145.44	403.27	10.84	7.58	-10.33
6984.00	53.180	7.100	6703.67	5387.67	-287.51	-111.34	408.77	9.93	6.48	-9.59
7029.00	55.560	3.440	6729.89	5413.89	-256.76	-74.93	412.11	8.46	5.29	-8.13
7074.00	58.150	359.050	6754.50	5438.50	-223.73	-37.28	412.91	9.99	5.76	-9.76
7119.00	60.530	354.400	6777.46	5461.46	-188.44	1.34	410.68	10.34	5.29	-10.93

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Operator	EQT	Slot	Slot 2H
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Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDS [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
7164.00	63.700	349.380	6798.51	5482.51	-150.93	40.69	405.05	12.12	7.04	-11.16
7209.00	69.040	344.370	6816.55	5500.55	-111.02	80.80	395.66	15.64	11.87	-11.13
7253.00	75.190	340.620	6830.06	5514.06	-69.81	120.70	383.05	16.16	13.98	-8.52
7298.00	78.470	337.820	6840.32	5524.32	-26.30	161.66	367.50	9.48	7.29	-6.22
7343.00	80.100	335.300	6848.68	5532.68	17.80	202.22	349.91	6.59	3.62	-5.60
7388.00	81.540	332.040	6855.86	5539.86	62.21	242.03	330.21	7.83	3.20	-7.24
7432.00	85.260	329.930	6860.92	5544.92	105.89	280.24	309.01	9.70	8.45	-4.80
7477.00	90.060	327.800	6862.76	5546.76	150.75	318.71	285.77	11.67	10.67	-4.73
7522.00	90.920	326.610	6862.37	5546.37	195.55	356.53	261.40	3.26	1.91	-2.64
7611.00	90.430	325.560	6861.32	5545.32	283.99	430.39	211.74	1.30	-0.55	-1.18
7701.00	90.250	326.110	6860.79	5544.79	373.38	504.85	161.20	0.64	-0.20	0.61
7791.00	89.750	324.740	6860.79	5544.79	462.69	578.95	110.13	1.62	-0.56	-1.52
7880.00	89.480	323.340	6861.39	5545.39	550.72	650.99	57.87	1.60	-0.30	-1.57
7970.00	89.690	320.700	6862.04	5546.04	639.20	721.92	2.49	2.94	0.23	-2.93
8059.00	89.380	324.630	6862.76	5546.76	726.88	792.67	-51.47	4.43	-0.35	4.42
8149.00	89.480	328.740	6863.66	5547.66	816.39	867.86	-100.89	4.57	0.11	4.57
8239.00	90.890	330.010	6863.37	5547.37	906.25	945.30	-146.74	2.11	1.57	1.41
8328.00	90.860	333.170	6862.01	5546.01	995.22	1023.57	-189.07	3.55	-0.03	3.55
8418.00	92.920	336.910	6859.04	5543.04	1085.06	1105.10	-227.02	4.74	2.29	4.16
8507.00	92.280	334.210	6855.00	5539.00	1173.83	1186.03	-263.80	3.11	-0.72	-3.03
8597.00	92.460	331.660	6851.28	5535.28	1263.75	1266.10	-304.72	2.84	0.20	-2.83
8686.00	92.220	329.890	6847.64	5531.64	1352.63	1343.70	-348.13	2.01	-0.27	-1.99
8776.00	91.780	330.660	6844.50	5528.50	1442.50	1421.81	-392.73	0.98	-0.49	0.86
8866.00	93.080	334.390	6840.69	5524.69	1532.40	1501.57	-434.21	4.39	1.44	4.14
8955.00	92.830	333.100	6836.10	5520.10	1621.26	1581.28	-473.53	1.47	-0.28	-1.45
9045.00	92.890	328.000	6831.60	5515.60	1711.07	1659.53	-517.71	5.66	0.07	-5.67
9134.00	92.950	327.190	6827.07	5511.07	1799.63	1734.57	-565.34	0.91	0.07	-0.91
9224.00	92.800	328.500	6822.56	5506.56	1889.22	1810.67	-613.18	1.46	-0.17	1.46
9313.00	91.480	319.160	6819.23	5503.23	1977.04	1882.38	-665.61	10.59	-1.48	-10.49
9403.00	91.420	321.930	6816.95	5500.95	2065.05	1951.84	-722.78	3.08	-0.07	3.08

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD (ft)	Inclination (°)	Azimuth (°)	TVD (ft)	TVDSS (ft)	Vert Sect (ft)	North (ft)	East (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9492.00	90.890	328.970	6815.15	5499.15	2153.30	2025.09	-773.21	7.93	-0.60	7.91
9582.00	90.950	326.160	6813.71	5497.71	2242.95	2101.03	-821.47	3.12	0.07	-3.12
9671.00	90.650	327.290	6812.46	5496.46	2331.49	2175.43	-870.29	1.31	-0.34	1.27
9771.00	90.460	327.730	6811.50	5495.50	2431.10	2259.77	-924.01	0.48	-0.19	0.44
9851.00	91.720	326.050	6809.97	5493.97	2510.70	2326.77	-967.69	2.62	1.58	-2.10
9940.00	91.820	326.960	6807.22	5491.22	2599.17	2400.95	-1016.79	1.03	0.11	1.02
10030.00	91.790	325.770	6804.39	5488.39	2688.61	2475.85	-1066.61	1.32	-0.03	-1.32
10119.00	91.850	325.360	6801.56	5485.56	2776.91	2549.21	-1116.91	0.47	0.07	-0.46
10209.00	91.750	326.450	6798.74	5482.74	2866.27	2623.70	-1167.34	1.22	-0.11	1.21
10298.00	91.720	327.060	6796.04	5480.04	2954.78	2698.10	-1216.11	0.69	-0.03	0.69
10388.00	91.790	328.180	6793.28	5477.28	3044.41	2774.07	-1264.28	1.25	0.08	1.24
10478.00	91.760	329.850	6790.50	5474.50	3134.20	2851.19	-1310.59	1.85	-0.03	1.86
10567.00	91.720	331.420	6787.79	5471.79	3223.11	2928.72	-1354.21	1.76	-0.04	1.76
10657.00	91.880	332.660	6784.97	5468.97	3313.06	3008.17	-1396.39	1.39	0.18	1.38
10746.00	91.850	331.990	6782.07	5466.07	3402.01	3086.95	-1437.70	0.75	-0.03	-0.75
10836.00	91.850	331.850	6779.16	5463.16	3491.96	3166.31	-1480.04	0.16	0.00	-0.16
10926.00	91.820	330.440	6776.28	5460.28	3581.89	3245.10	-1523.45	1.57	-0.03	-1.57
11015.00	91.820	329.210	6773.46	5457.46	3670.74	3322.00	-1568.17	1.38	0.00	-1.38
11105.00	91.720	328.750	6770.68	5454.68	3760.53	3399.09	-1614.52	0.52	-0.11	-0.51
11194.00	91.630	328.460	6768.07	5452.07	3849.29	3475.02	-1660.87	0.34	-0.10	-0.33
11284.00	91.630	329.200	6765.51	5449.51	3939.07	3552.00	-1707.43	0.82	0.00	0.82
11374.00	91.690	331.040	6762.91	5446.91	4028.95	3630.00	-1752.25	2.04	0.07	2.04
11463.00	91.720	330.990	6760.26	5444.26	4117.88	3707.82	-1795.36	0.07	0.03	-0.06
11553.00	91.660	333.930	6757.60	5441.60	4207.83	3787.58	-1836.95	3.27	-0.07	3.27
11642.00	91.690	334.860	6755.00	5439.00	4296.74	3867.80	-1875.39	1.05	0.03	1.04
11732.00	91.690	332.790	6752.35	5436.35	4386.67	3948.53	-1915.07	2.30	0.00	-2.30
11821.00	91.720	330.440	6749.70	5433.70	4475.62	4026.79	-1957.36	2.64	0.03	-2.64
11911.00	91.630	328.600	6747.07	5431.07	4565.45	4104.32	-2002.99	2.05	-0.10	-2.04
12001.00	91.690	327.340	6744.46	5428.46	4655.13	4180.58	-2050.70	1.40	0.07	-1.40
12090.00	91.630	325.570	6741.88	5425.88	4743.60	4254.73	-2099.86	1.99	-0.07	-1.99

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

WELLPATH DATA (160 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVDSS [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
12180.00	91.690	324.470	6739.28	5423.28	4832.79	4328.44	-2151.43	1.22	0.07	-1.22
12269.00	91.660	324.370	6736.67	5420.67	4920.87	4400.79	-2203.20	0.12	-0.03	-0.11
12359.00	91.660	323.980	6734.07	5418.07	5009.88	4473.73	-2255.85	0.43	0.00	-0.43
12449.00	91.630	323.490	6731.48	5415.48	5098.80	4546.27	-2309.07	0.55	-0.03	-0.54
12538.00	91.690	322.930	6728.91	5412.91	5186.59	4617.51	-2362.34	0.63	0.07	-0.63
12628.00	91.690	323.410	6726.25	5410.25	5275.36	4689.52	-2416.27	0.53	0.00	0.53
12717.00	91.630	325.560	6723.67	5407.67	5363.45	4761.93	-2467.95	2.42	-0.07	2.42
12807.00	91.720	327.510	6721.04	5405.04	5452.92	4836.97	-2517.55	2.17	0.10	2.17
12897.00	91.660	327.570	6718.39	5402.39	5542.55	4912.88	-2565.84	0.09	-0.07	0.07
12927.00	91.660	327.570	6717.52	5401.52	5572.42	4938.19	-2581.92	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Blake 2H (519171) AWB Ref Wellpath: Blake 2H (519171) AWP Proj: 12927'										
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]	
17.5in Open Hole	18.00	1253.00	1235.00	18.00	1252.99	0.00	0.00	3.11	-2.66	
13.375in Casing Surface	18.00	1253.00	1235.00	18.00	1252.99	0.00	0.00	3.11	-2.66	
12.25in Open Hole	1253.00	2583.00	1330.00	1252.99	2582.96	3.11	-2.66	3.34	0.58	
9.625in Casing Intermediate	18.00	2583.00	2565.00	18.00	2582.96	0.00	0.00	3.34	0.58	
8.75in Open Hole	2583.00	5634.00	3051.00	2582.96	5613.35	3.34	0.58	-305.92	-126.44	

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# Actual Wellpath Report

Blake 2H (519171) AWP Proj: 12927'

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EQT	Slot	Slot 2H
Area	Wetzel County, WV	Well	Blake 2H (519171)
Field	Wetzel	Wellbore	Blake 2H (519171) AWB
Facility	Blake Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Blake 2H BHL Rev-1	6705.20	4942.91	-2573.65	1631748.22	425173.39	39°39'35.947"N	80°48'28.962"W	point
Blake Pad HL	6843.00	18.49	6.72	1634328.43	420249.28	39°38'47.654"N	80°47'55.062"W	polygon
Blake 2H LP Rev-1	6862.00	304.44	293.94	1634615.63	420535.21	39°38'50.521"N	80°47'51.444"W	point

WELLPATH COMPOSITION - Ref Wellbore: Blake 2H (519171) AWB Ref Wellpath: Blake 2H (519171) AWP Proj: 12927'				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	3407.99	SDI Keeper v1.04	01 SDI Gyro <12-1/4"> (108'-3408')	Blake 2H (519171) AWB
3407.99	5633.99	OWSG MWD rev2 - Standard	02 SDI MWD <8-3/4"> (3408')(3508'-5634')	Blake 2H (519171) AWB
5633.99	12897.00	OWSG MWD rev2 + IFR1 + Multi-Station Correction	03_BH AT Curve +MagVar MSA <8-1/2"> (5634')(5731'-12897')	Blake 2H (519171) AWB
12897.00	12927.00	Blind Drilling (std)	Projection to bit	Blake 2H (519171) AWB

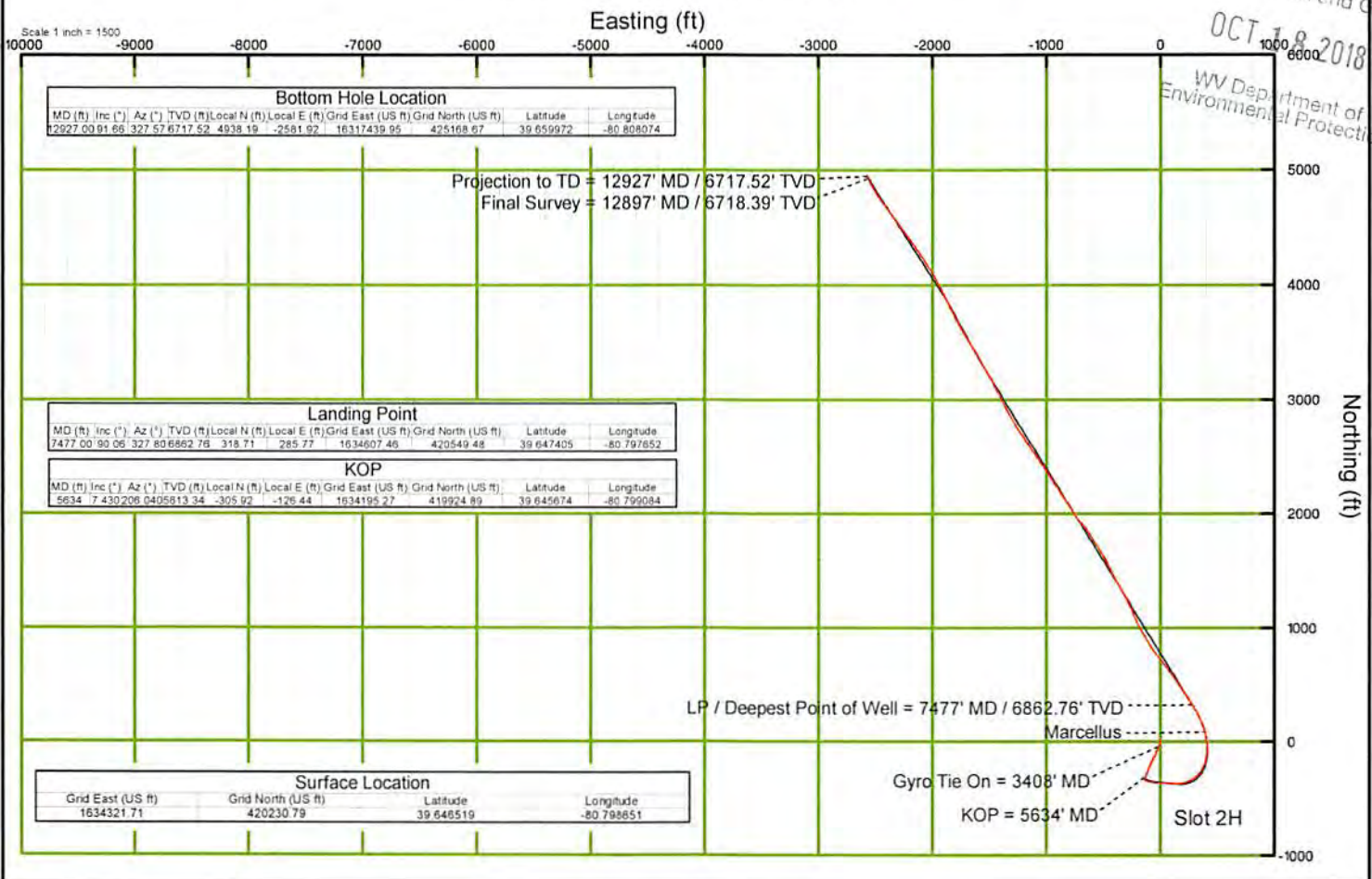
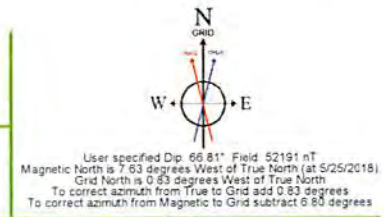
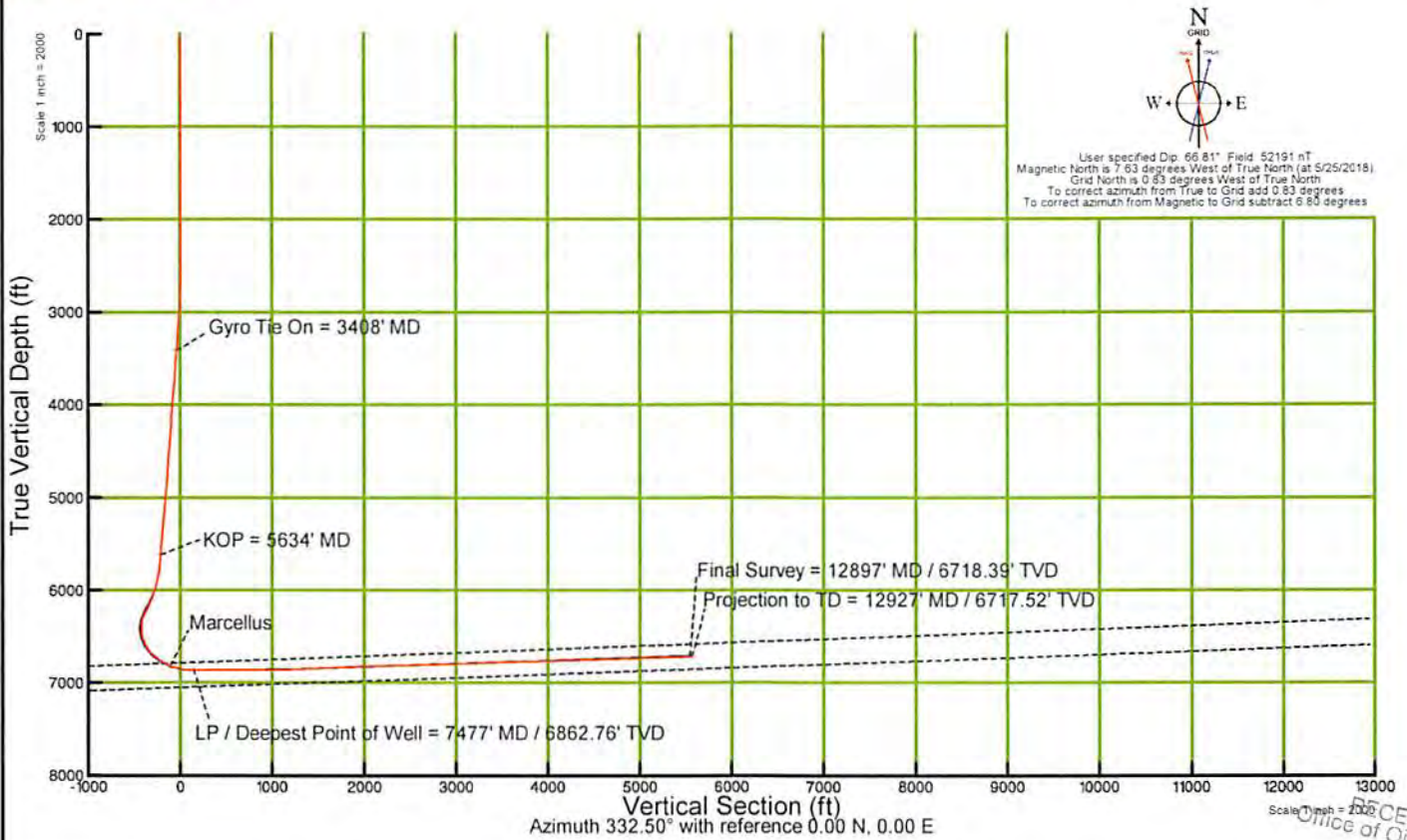
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KB elevation = 1316ft  
Ground elevation = 1298ft

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a GE company



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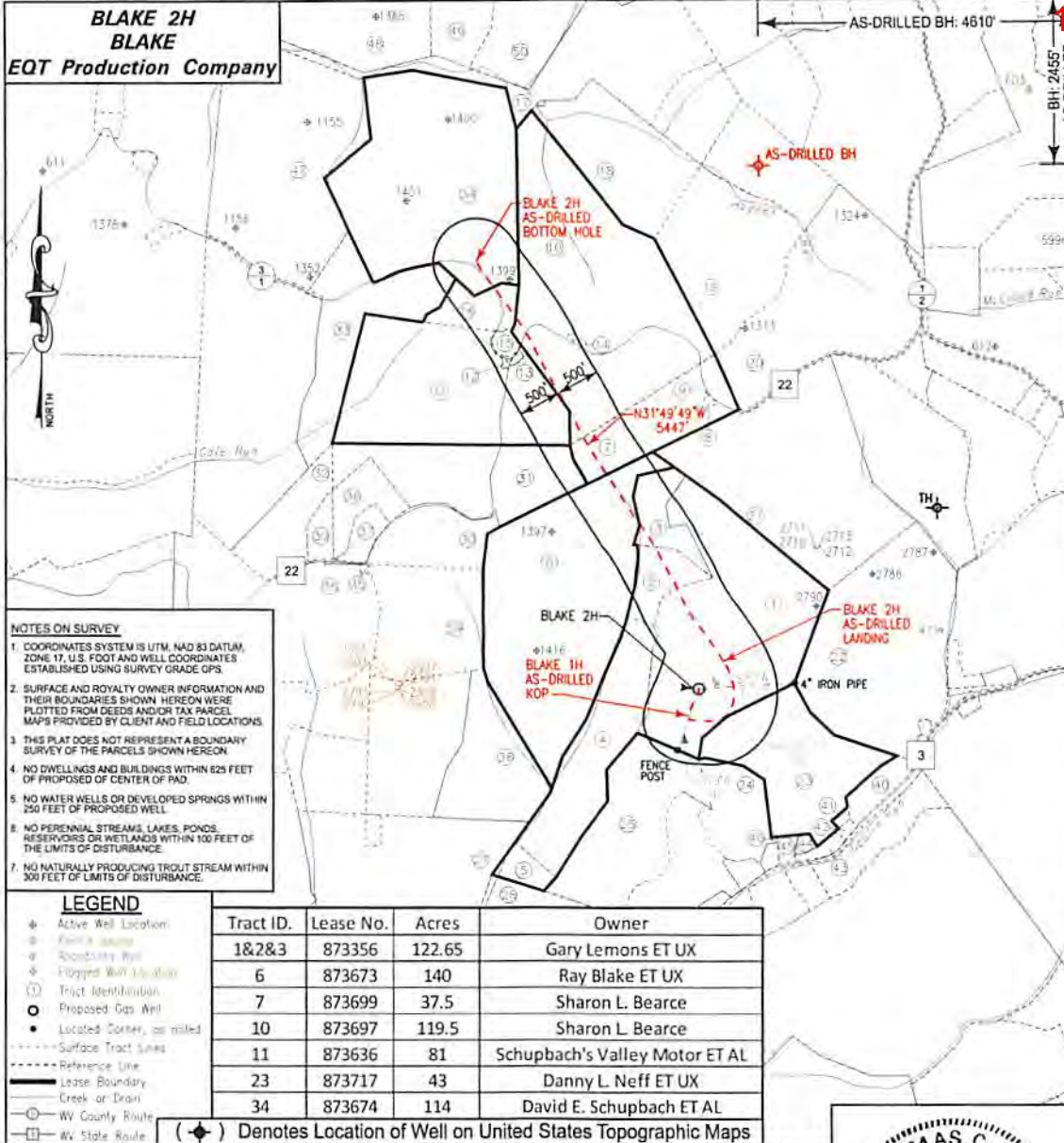


LATITUDE 39° 40' 00" TH: 1955'

AS-DRILLED BH: 4610'

11/16/2018

**BLAKE 2H  
BLAKE  
EQT Production Company**



**NOTES ON SURVEY**

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED OF CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

- LEGEND**
- Active Well Location
  - Former Location
  - Boundary Well
  - Proposed Well Location
  - Tract Identification
  - Proposed Gas Well
  - Located Corner, as marked
  - Surface Tract Lines
  - Reference Line
  - Lease Boundary
  - Creek or Drain
  - WV County Route
  - WV State Route

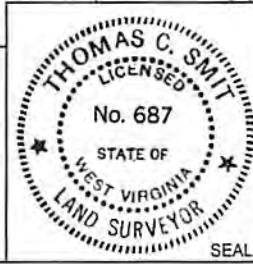
Tract ID.	Lease No.	Acres	Owner
1&2&3	873356	122.65	Gary Lemons ET UX
6	873673	140	Ray Blake ET UX
7	873699	37.5	Sharon L. Bearce
10	873697	119.5	Sharon L. Bearce
11	873636	81	Schupbach's Valley Motor ET AL
23	873717	43	Danny L. Neff ET UX
34	873674	114	David E. Schupbach ET AL

(\*) Denotes Location of Well on United States Topographic Maps



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 regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smit*  
L. L. S. 687



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FILE NO: W2030 (BK 50-21)  
DRAWING NO:  
SCALE: 1" = 1600'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: JUNE 25 20 18  
OPERATORS WELL NO: BLAKE 2H  
API WELL NO  
47 - 103 - 02911  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1,298' WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
DISTRICT: Magnolia COUNTY: Wetzell

SURFACE OWNER: Gary Lemons ACREAGE: 69.12 ±  
ROYALTY OWNER: Gary Lemons, ET UX LEASE NO: 873356 ACREAGE: 122.65 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,786'

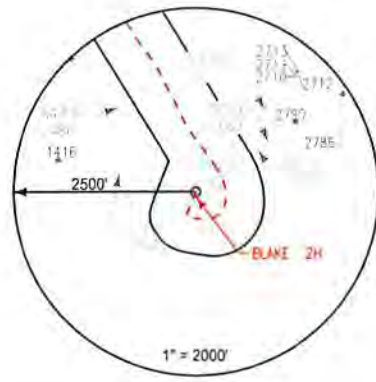
WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
Bridgeport, WV 26330 Bridgeport, WV 26330

TOP HOLE AS-DRILLED



**Blake 2H**  
**Blake**  
**EQT Production Company**

Tract ID	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	5	35	Wetzel	Magnolia	Gary Lemons	79.7
2	5	34	Wetzel	Magnolia	Gary Lemons	11.17
3	5	27	Wetzel	Magnolia	Gary Lemons	11
4	8	7	Wetzel	Magnolia	Gary Lemons	30.2
5	8	13	Wetzel	Magnolia	Gary Lemons	5.57
6	5	33	Wetzel	Magnolia	Franklin Ray Blake	108.47
7	5	22	Wetzel	Magnolia	Sharon L. Bearce	37.5
8	5	23	Wetzel	Magnolia	N/A	0.4
9	5	22.1	Wetzel	Magnolia	Sharon L. Bearce	0.1
10	5	16	Wetzel	Magnolia	Sharon L. Bearce	108.64
11	5	19	Wetzel	Magnolia	Ronald L. & Monette Schupbach	68.49
12	5	20	Wetzel	Magnolia	Ronald L. & Monette Schupbach	0.11
13	5	21	Wetzel	Magnolia	Ronald L. & Monette Schupbach	0.19
14	5	15	Wetzel	Magnolia	Bokulman Cemetery	0.99
15	5	14	Wetzel	Magnolia	Ronald Lee & Monette Schupbach	1.51
16	5	13	Wetzel	Magnolia	Ronald L. & Monette Schupbach	9.48
17	11	26	Wetzel	Proctor	Douglas S. & Unda C. Parish	46.98
18	5	3	Wetzel	Magnolia	Sharon Bearce	39.32
19	5	17	Wetzel	Magnolia	Sharon L. Bearce	48.32
20	5	18	Wetzel	Magnolia	Wetzel Co Far, Fin, & Feather	72.26
21	5	28	Wetzel	Magnolia	Gary & Judy Ann Lemons	102.75
22	6	3	Wetzel	Magnolia	Gary Patrick Fitzsimmons	71.99
23	8	8	Wetzel	Magnolia	Danny L. & Orson F. Neff	42.88
24	8	15.3	Wetzel	Magnolia	David & Orion Neff	11.97
25	8	14	Wetzel	Magnolia	Aaron Lloyd Lemons	44.79
26	8	25	Wetzel	Magnolia	Cathy M. Westfall ET AL	57.68
27	8	12	Wetzel	Magnolia	David L. & Ralph D. Smith	58.15
28	8	6	Wetzel	Magnolia	Albert Kocher HBS	31.01
29	5	32	Wetzel	Magnolia	George S. Schupbach	37.5
30	5	26.2	Wetzel	Magnolia	Franklin Ray Blake	17.73
31	5	26	Wetzel	Magnolia	Stone Energy Corporation	39.95
32	5	25	Wetzel	Magnolia	Stone Energy Corporation	17.64
33	5	11	Wetzel	Magnolia	Melvin E. & Wilda G. Schupbach	36.87
34	5	2	Wetzel	Magnolia	David S. & Jeanne L. Schupbach	96.43
35	5	31.3	Wetzel	Magnolia	Schupbach Cemetery	0.27
36	5	31	Wetzel	Magnolia	John William Burton	66.56
37	5	26.1	Wetzel	Magnolia	Stone Energy Corporation	1.83
38	5	25.1	Wetzel	Magnolia	Stone Energy Corporation	13.95
39	5	25.1	Wetzel	Magnolia	Stone Energy Corporation	4.19
40	9	48	Wetzel	Magnolia	Heather Leigh Wetzel	6.32
41	8	8.1	Wetzel	Magnolia	F. D. & Marsha A. Sidenstricker	0.57
42	8	8.2	Wetzel	Magnolia	Earnest Dean Sidenstricker	0.58
43	8	17	Wetzel	Magnolia	Tamara L. & Michael Stansberry	1.23
44	8	16.2	Wetzel	Magnolia	Loma A. Neff	0.92
45	8	16	Wetzel	Magnolia	Keith Sr. & Sena Wojtasiak	1.14
46	8	16.1	Wetzel	Magnolia	David & Orion Neff	0.10
47	5	1.1	Wetzel	Magnolia	Ronald L. Schupbach	90.35
48	11	13	Wetzel	Proctor	Coastal Forest Resources Co	105.00
49	11	14	Wetzel	Proctor	Coastal Forest Resources Co	22.00
50	11	16	Wetzel	Proctor	Nancy L. Garner	40.00



**Notes:**  
**BLAKE 2H As-Drilled coordinates are**  
 NAD 27 N: 420,231,000 E: 1,634,321,000  
 NAD 27 Lat: 39.648520 Long: -80.798654  
 NAD 83 UTM N: 4,388,553,669 E: 517,290,640  
**BLAKE 2H As-Drilled KCP coordinates are**  
 NAD 27 N: 419,924,890 E: 1,634,195,270  
 NAD 27 Lat: 39.645675 Long: -80.799085  
 NAD 83 UTM N: 4,388,652,156 E: 517,376,296  
**BLAKE 2H As-Drilled Landing Point coordinates are**  
 NAD 27 N: 420,549,480 E: 1,634,607,460  
 NAD 27 Lat: 39.647408 Long: -80.797853  
 NAD 83 UTM N: 4,388,652,156 E: 517,376,296  
**BLAKE 2H As-Drilled Bottom Hole coordinates are**  
 NAD 27 N: 425,168,670 E: 1,631,739,950  
 NAD 27 Lat: 39.659972 Long: -80.808074  
 NAD 83 UTM N: 4,390,044,817 E: 516,479,235  
 West Virginia Coordinates system of 1927 (North Zone)  
 based upon Differential GPS Measurements  
 Plat orientation, Corner and well ties are based upon  
 the grid north meridian.  
 Well location references are based upon the grid north  
 meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.

**Well References**

Fence Post • N68°W 157.0' BLAKE 2H

Fence Post

1" = 200'

S20°W 507.0'

**LEGEND**

- ⊕ Active Well Location
- Proposed Gas Well
- Located Corner, as noted
- Surface Plat Lines
- - - Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route

**BLAKE PAD**

- BLAKE 5H
- BLAKE 6H
- BLAKE 3H
- BLAKE 4H
- BLAKE 1H
- BLAKE 2H

**KEYSTONE**  
CONSULTANTS, INC.

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 regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smith*  
L. L. S. 687

THOMAS C. SMITH  
LICENSED  
No. 687  
STATE OF WEST VIRGINIA  
LAND SURVEYOR

FILE NO: W2030 (BK 50-21)  
 DRAWING NO: \_\_\_\_\_  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY: 1:2500  
 PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

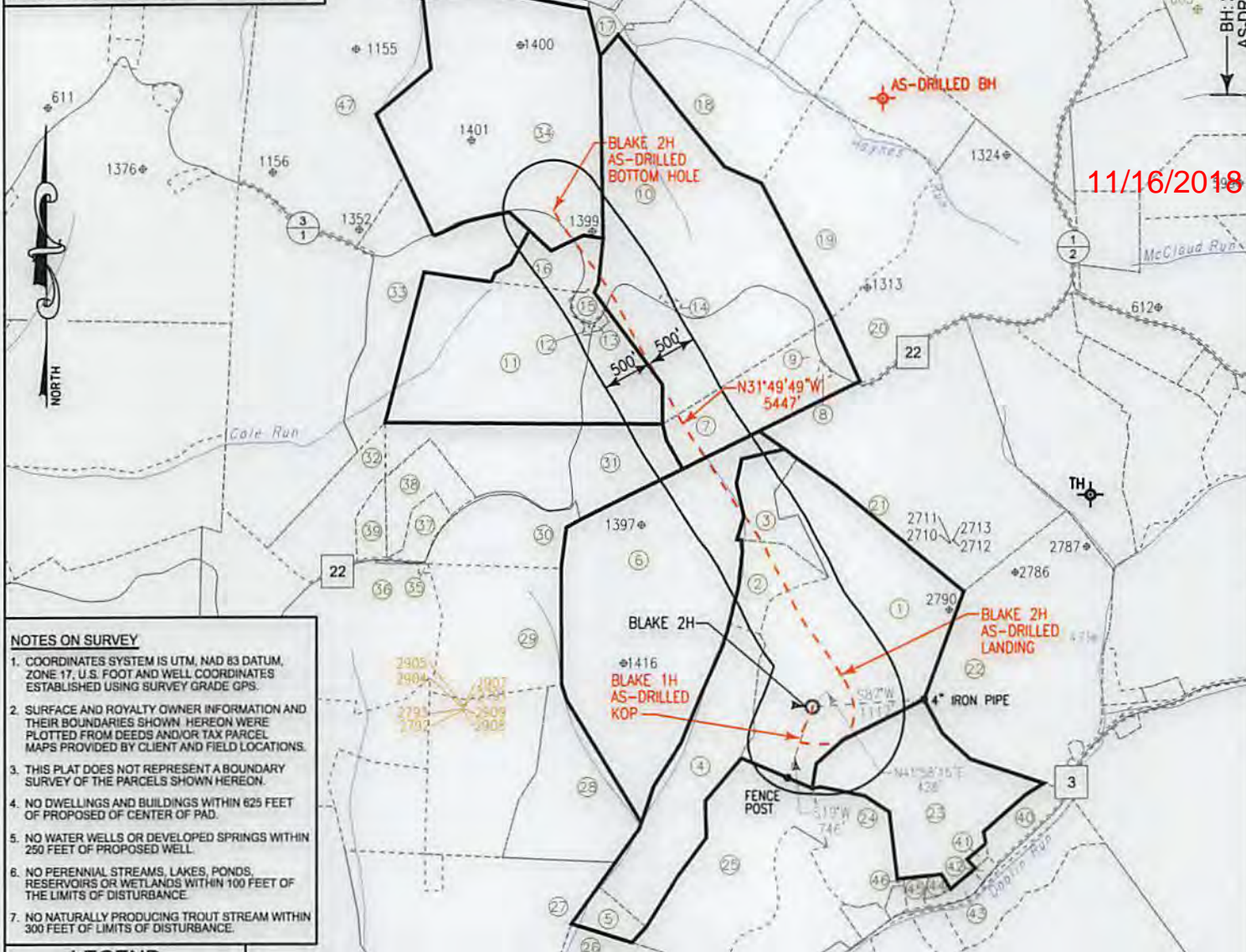
DATE: JUNE 25 20 18  
 OPERATORS WELL NO: BLAKE 2H  
 API WELL NO: \_\_\_\_\_  
 STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION ELEVATION: 1,298' WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
 DISTRICT: Magnolia COUNTY: Wetzel  
 SURFACE OWNER: Gary Lemons ACREAGE: 69.12 ±  
 ROYALTY OWNER: Gary Lemons, ET UX LEASE NO: 873356 ACREAGE: 122.65 ±  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY)  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,786'  
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
 Bridgeport, WV 26330 Bridgeport, WV 26330

RECEIVED  
 Dept of Oil and Gas  
 OCT 18 2018  
 WV Department of Environmental Protection



**BLAKE 2H  
BLAKE  
EQT Production Company**



**NOTES ON SURVEY**

- COORDINATES SYSTEM IS UTM, NAD 83 DATUM, ZONE 17, U.S. FOOT AND WELL COORDINATES ESTABLISHED USING SURVEY GRADE GPS.
- SURFACE AND ROYALTY OWNER INFORMATION AND THEIR BOUNDARIES SHOWN HEREON WERE PLOTTED FROM DEEDS AND/OR TAX PARCEL MAPS PROVIDED BY CLIENT AND FIELD LOCATIONS.
- THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY OF THE PARCELS SHOWN HEREON.
- NO DWELLINGS AND BUILDINGS WITHIN 625 FEET OF PROPOSED CENTER OF PAD.
- NO WATER WELLS OR DEVELOPED SPRINGS WITHIN 250 FEET OF PROPOSED WELL.
- NO PERENNIAL STREAMS, LAKES, PONDS, RESERVOIRS OR WETLANDS WITHIN 100 FEET OF THE LIMITS OF DISTURBANCE.
- NO NATURALLY PRODUCING TROUT STREAM WITHIN 300 FEET OF LIMITS OF DISTURBANCE.

**LEGEND**

- ⊕ Active Well Location
- ⊕ Permit issued
- ⊕ Abandoned Well
- ⊕ Plugged Well Location
- ① Tract Identification
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- Reference Line
- Lease Boundary
- Creek or Drain
- ⊕ WV County Route
- ⊕ WV State Route

Tract ID.	Lease No.	Acres	Owner
1&2&3	873356	122.65	Gary Lemons ET UX
6	873673	140	Ray Blake ET UX
7	873699	37.5	Sharon L. Bearce
10	873697	119.5	Sharon L. Bearce
11	873636	81	Schubach's Valley Motor ET AL
23	873717	43	Danny L. Neff ET UX
34	873674	114	David E. Schubach ET AL

(⊕) Denotes Location of Well on United States Topographic Maps



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 regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smil*  
L. L. S. 687



FILE NO: W2030 (BK 50-21)  
DRAWING NO: \_\_\_\_\_  
SCALE: 1" = 1600'  
MINIMUM DEGREE OF ACCURACY: 1:2500  
PROVEN SOURCE OF ELEVATION: NGS CORS Station

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

DATE: JUNE 25 20 18  
OPERATORS WELL NO: BLAKE 2H  
API WELL NO  
47 - 103 - 02911  
STATE COUNTY PERMIT

WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
(IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW

LOCATION ELEVATION: 1,298' WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
DISTRICT: Magnolia COUNTY: Wetzel

SURFACE OWNER: Gary Lemons ACREAGE: 69.12 ±  
ROYALTY OWNER: Gary Lemons, ET UX LEASE NO: 873356 ACREAGE: 122.65 ±

PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,786'

WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
Bridgeport, WV 26330 Bridgeport, WV 26330

TOP HOLE AS-DRILLED



ADDRESS: 112 Professional Place PO Box 380  
 WELL OPERATOR: EOT Production Company  
 DESIGNATED AGENT: Jason Hanson  
 TARGET FORMATION: Marcellus  
 ESTIMATED DEPTH: 8,286'  
 PROPOSED WORK:  DRIFT  CORRECT  DRIFT DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 SURFACE OWNER: Gary Lemons ET UX  
 LEASE NO: 873328  
 ACREAGE: 133.82 ±  
 DISTRICT: Marion  
 COUNTY: West  
 LOCATION ELEVATION: 1,588' WATERSHED: CAMPBELL QUADRANGLE: NEW MARTINSVILLE T.2.  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL

U.S. COGS Station  
 PROVEN SOURCE OF ELEVATION:  
 1:5200  
 MINIMUM DEGREE OF ACCURACY:  
 SCALE: 1" = 1800'  
 DRAWING NO:  
 FIGE NO: W5030 (BK 20-51)



STATE: WV COUNTY: MARION PERMIT: 145211  
 WELL NO: 103-05811  
 OPERATORS WELL NO: BLAKE SH  
 DATE: JUL 22 20 18



I, J. G. S. 887  
 Department of Environmental Protection  
 the regulations issued and prescribed by the  
 and shows all the information required by law and  
 called and as far as my knowledge and belief  
 correct to the best of my knowledge and belief.  
 I, the undersigned, hereby certify that this plan is

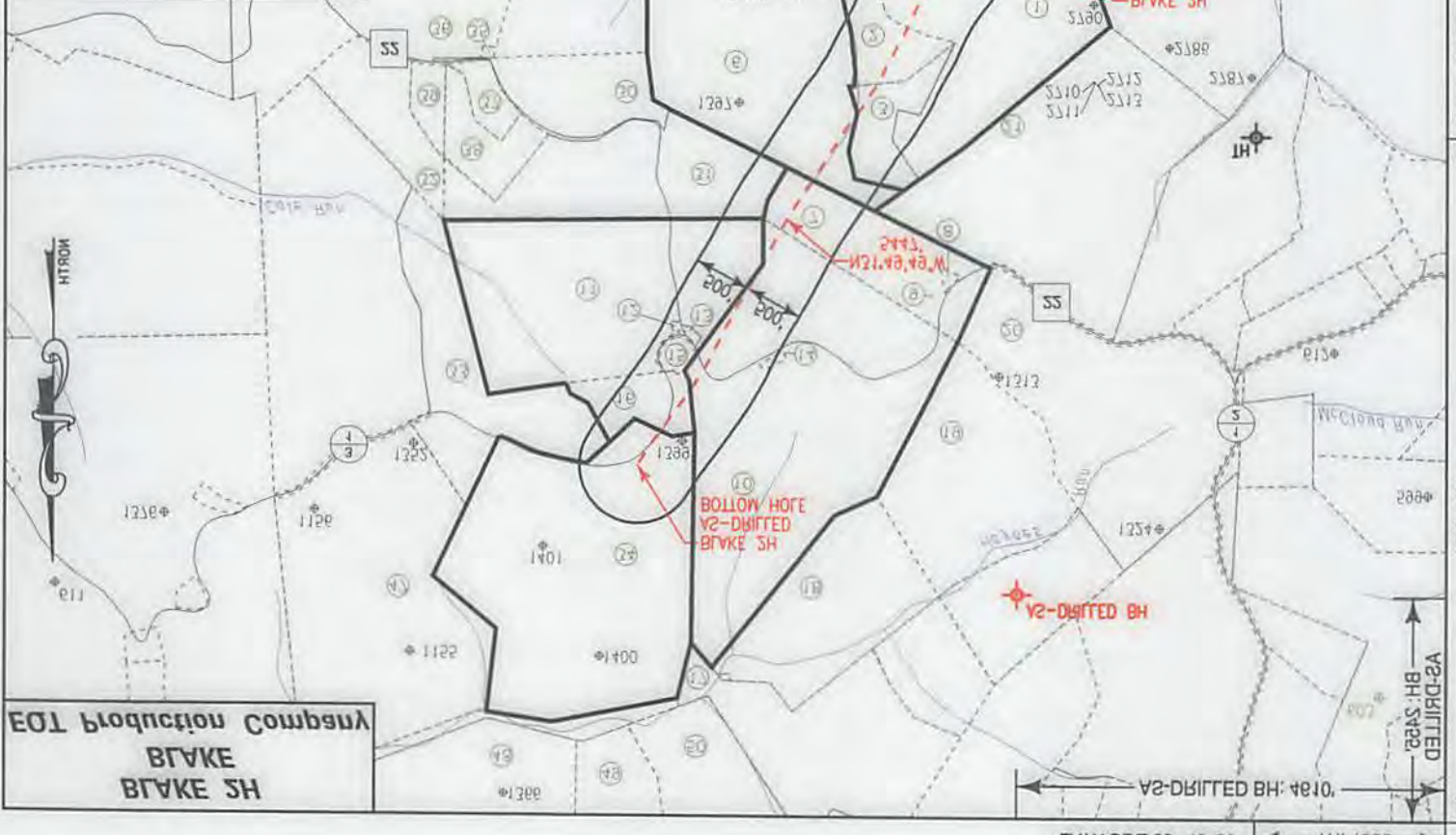


- WV State Route
- WV County Route
- Creek or Drain
- Geologic boundary
- Reference line
- Surface tract lines
- Located corner as noted
- Proposed gas well
- ① Tract identification
- ⊕ Proposed well location
- ⊕ Existing well location
- ⊕ Utility location
- ⊕ Active well location

Maple Circled Locations for Well on United States Topographic

34	873274	114	Davis E. Schupbach ET UX
53	873271	43	Danny L. Neff ET UX
11	873230	81	Schupbach's Valley Motor ET UX
10	873227	118.2	Sharon L. Bearce
7	873228	31.2	Sharon L. Bearce
e	873223	140	Ray Blake ET UX
12, 28, 3	873328	133.82	Gary Lemons ET UX
TRACT IDENT.	LEASE NO.	ACRES	OWNER

**LEGEND**  
 300 FEET OF LIMITS OF DISTURBANCE  
 NO INTENTIONALLY PRODUCING THROUGH  
 THE LIMITS OF DISTURBANCE:  
 REVENUES OR MILEAGES WITHIN 100 FEET OF  
 NO REVENUE STREAMS, CREEKS, PONDS,  
 300 FEET OF PROPOSED WELL  
 NO WATER WELLS OR DELEGATED SPRINGS WITHIN  
 OF PROPOSED OF CENTER OF WVD  
 NO DWELLINGS AND BUILDINGS WITHIN 625 FEET  
 SURVEY OF THE SURVEY'S SHOWN HEREON  
 THIS PLAN DOES NOT REPRESENT A BOUNDARY  
 THIS BOUNDARY BY CLIENT AND FIELD LOCATIONS  
 GOTTED FROM DEEDS AND/OR TAX PARCELS  
 THEIR BOUNDARIES SHOWN HEREON WERE  
 SURFACE AND HOURLY OWNER INFORMATION AND  
 ESTABLISHED PLAIN SURVEY GRADE OBS.  
 3000 1" = 1" 2" FOOT AND WELL COORDINATES  
 1" COORDINATE SYSTEM IS PLM 11 AND 83  
 NOTES ON SURVEY



EOT Production Company  
 BLAKE  
 BLAKE SH



**Blake 2H  
Blake  
EQT Production Company**

Tract ID.	Tax Map No.	Parcel No.	County	District	Surface Tract Owner	Acres
1	5	35	Wetzel	Magnolia	Gary Lemons	79.7
2	5	34	Wetzel	Magnolia	Gary Lemons	11.17
3	5	27	Wetzel	Magnolia	Gary Lemons	11
4	8	7	Wetzel	Magnolia	Gary Lemons	30.2
5	8	13	Wetzel	Magnolia	Gary Lemons	5.57
6	5	33	Wetzel	Magnolia	Franklin Ray Blake	108.47
7	5	22	Wetzel	Magnolia	Sharon L. Bearce	37.5
8	5	23	Wetzel	Magnolia	N/A	0.4
9	5	22.1	Wetzel	Magnolia	Sharon L. Bearce	0.1
10	5	16	Wetzel	Magnolia	Sharon L. Bearce	108.64
11	5	19	Wetzel	Magnolia	Ronald L. & Monette Schupbach	68.49
12	5	20	Wetzel	Magnolia	Ronald L. & Monette Schupbach	0.11
13	5	21	Wetzel	Magnolia	Ronald L. & Monette Schupbach	0.19
14	5	15	Wetzel	Magnolia	Bokulman Cemetery	0.39
15	5	14	Wetzel	Magnolia	Ronald Lee & Monette Schupbach	1.51
16	5	13	Wetzel	Magnolia	Ronald L. & Monette Schupbach	9.48
17	11	26	Wetzel	Proctor	Douglas S. & Linda C. Parish	46.98
18	5	3	Wetzel	Magnolia	Sharon Bearce	39.32
19	5	17	Wetzel	Magnolia	Sharon L. Bearce	48.32
20	5	18	Wetzel	Magnolia	Wetzel Co Fur, Fin, & Feather	72.26
21	5	28	Wetzel	Magnolia	Gary & Judy Ann Lemons	102.75
22	6	3	Wetzel	Magnolia	Gary Patrick Fitzsimmons	71.99
23	8	8	Wetzel	Magnolia	Danny L. & Orion F. Neff	42.88
24	8	15.3	Wetzel	Magnolia	David & Orion Neff	11.97
25	8	14	Wetzel	Magnolia	Aaron Lloyd Lemons	43.79
26	8	25	Wetzel	Magnolia	Cathy M. Westfall ET AL	57.68
27	8	12	Wetzel	Magnolia	David L. & Ralph O. Smith	58.15
28	8	6	Wetzel	Magnolia	Albert Kocher HRS	33.01
29	5	32	Wetzel	Magnolia	George S. Schupbach	37.5
30	5	26.2	Wetzel	Magnolia	Franklin Ray Blake	17.73
31	5	26	Wetzel	Magnolia	Stone Energy Corporation	39.95
32	5	25	Wetzel	Magnolia	Stone Energy Corporation	17.64
33	5	12	Wetzel	Magnolia	Melvin E. & Wilda G. Schupbach	36.87
34	5	2	Wetzel	Magnolia	David E. & Jeanie L. Schupbach	96.43
35	5	31.1	Wetzel	Magnolia	Schupbach Cemetery	0.27
36	5	31	Wetzel	Magnolia	John William Burton	66.56
37	5	26.1	Wetzel	Magnolia	Stone Energy Corporation	3.93
38	5	26.3	Wetzel	Magnolia	Stone Energy Corporation	10.95
39	5	25.1	Wetzel	Magnolia	Stone Energy Corporation	4.19
40	9	48	Wetzel	Magnolia	Heather Leigh Wetzel	6.32
41	8	8.1	Wetzel	Magnolia	E. D. & Marshie A. Sidenstricker	0.57
42	8	8.2	Wetzel	Magnolia	Earnest Dean Sidenstricker	0.58
43	8	17	Wetzel	Magnolia	Tamara L. & Michael Stansberry	1.23
44	8	16.2	Wetzel	Magnolia	Loma A. Neff	0.92
45	8	16	Wetzel	Magnolia	Keith Sr. & Sera Wojtaskiak	1.14
46	8	16.1	Wetzel	Magnolia	David & Orion Neff	0.10
47	5	1.1	Wetzel	Magnolia	Ronald L. Schupbach	90.33
48	11	13	Wetzel	Proctor	Coastal Forest Resources Co.	105.00
49	11	14	Wetzel	Proctor	Coastal Forest Resources Co.	22.00
50	11	16	Wetzel	Proctor	Nancy J. Garner	40.00



11/16/2018

**Notes:**  
**BLAKE 2H As-Drilled coordinates are**  
 NAD 27 N: 420,231.000 E: 1,634,321.000  
 NAD 27 Lat: 39.646520 Long: -80.798654  
 NAD 83 UTM N: 4,388,553.669 E: 517,290.640  
**BLAKE 2H As-Drilled KOP coordinates are**  
 NAD 27 N: 419,924.890 E: 1,634,195.270  
 NAD 27 Lat: 39.645675 Long: -80.799085  
 NAD 83 UTM N: 4,388,459.769 E: 517,253.889  
**BLAKE 2H As-Drilled Landing Point coordinates are**  
 NAD 27 N: 420,549.480 E: 1,634,607.460  
 NAD 27 Lat: 39.647406 Long: -80.797653  
 NAD 83 UTM N: 4,388,652.156 E: 517,376.296  
**BLAKE 2H As-Drilled Bottom Hole coordinates are**  
 NAD 27 N: 425,168.670 E: 1,631,739.950  
 NAD 27 Lat: 39.659972 Long: -80.808074  
 NAD 83 UTM N: 4,390,044.817 E: 516,479.235  
 West Virginia Coordinates system of 1927 (North Zone)  
 based upon Differential GPS Measurements  
 Plat orientation, Corner and well ties are based upon  
 the grid north meridian  
 Well location references are based upon the grid north  
 meridian.  
 UTM coordinates are NAD83, Zone 17, Meters.



**LEGEND**

- ⊕ Active Well Location
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- Lease Boundary
- Creek or Drain
- WV County Route
- WV State Route

- BLAKE PAD**
- BLAKE 5H
  - BLAKE 6H
  - BLAKE 3H
  - BLAKE 4H
  - BLAKE 1H
  - BLAKE 2H



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 regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smollus*  
 L. L. S. 687



FILE NO: W2030 (BK 50-21)  
 DRAWING NO: \_\_\_\_\_  
 SCALE: 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY:  
1:2500  
 PROVEN SOURCE OF ELEVATION:  
NGS CORS Station

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

DATE: JUNE 25 20 18  
 OPERATORS WELL NO: BLAKE 2H  
 API WELL NO  
47 - 103 - 02911  
 STATE COUNTY PERMIT

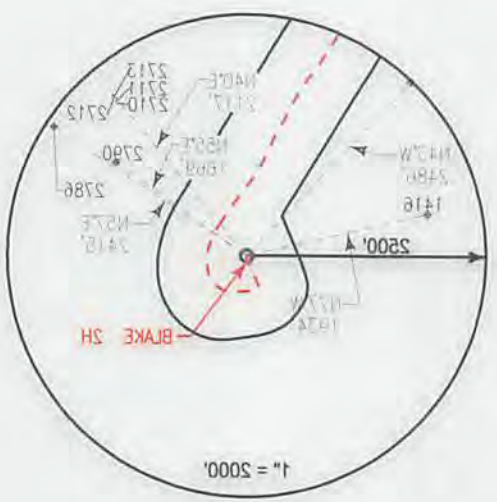
WELL TYPE:  OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  
 (IF GAS) PRODUCTION:  STORAGE  DEEP  SHALLOW  
 LOCATION ELEVATION: 1,298' WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.5'  
 DISTRICT: Magnolia COUNTY: Wetzel  
 SURFACE OWNER: Gary Lemons ACREAGE: 69.12 ±  
 ROYALTY OWNER: Gary Lemons, ET UX LEASE NO: 873356 ACREAGE: 122.65 ±  
 PROPOSED WORK:  DRILL  CONVERT  DRILL DEEPER  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  
 PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_  
 PLUG AND ABANDON  CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6,786'  
 WELL OPERATOR: EQT Production Company DESIGNATED AGENT: Jason Ranson  
 ADDRESS: 115 Professional Place PO Box 280 ADDRESS: 115 Professional Place PO Box 280  
Bridgeport, WV 26330 Bridgeport, WV 26330

TOP HOLE AS-DRILLED



DISTRICT	PARCEL NO.	TAX MAP NO.	COUNTY	DISTRICT	SURFACE TRACT OWNER
10	2	35	Wetzel	Magalia	Gary Lemons
11	2	34	Wetzel	Magalia	Gary Lemons
12	2	37	Wetzel	Magalia	Gary Lemons
13	2	7	Wetzel	Magalia	Gary Lemons
14	2	13	Wetzel	Magalia	Gary Lemons
15	2	33	Wetzel	Magalia	Franklin Ray Blake
16	2	32	Wetzel	Magalia	Sharon L. Beare
17	2	33	Wetzel	Magalia	Sharon L. Beare
18	2	16	Wetzel	Magalia	Sharon L. Beare
19	2	19	Wetzel	Magalia	Ronald J. & Monette Schupbach
20	2	20	Wetzel	Magalia	Ronald J. & Monette Schupbach
21	2	21	Wetzel	Magalia	Ronald J. & Monette Schupbach
22	2	12	Wetzel	Magalia	Bokliman Cemetery
23	2	14	Wetzel	Magalia	Ronald J. & Monette Schupbach
24	2	13	Wetzel	Magalia	Ronald J. & Monette Schupbach
25	2	26	Wetzel	Proctor	Douglas S. & Linda C. Parish
26	2	3	Wetzel	Magalia	Sharon Beare
27	2	17	Wetzel	Magalia	Sharon L. Beare
28	2	18	Wetzel	Magalia	Wetzel Co. Fur. Fin. & Furniture
29	2	28	Wetzel	Magalia	Gary & Judy Ann Lemons
30	2	3	Wetzel	Magalia	Gary Patrick Fitzsimmons
31	2	8	Wetzel	Magalia	Danny J. & Onon F. Neff
32	2	12.3	Wetzel	Magalia	David & Onon Neff
33	2	14	Wetzel	Magalia	Aaron Lloyd Lemons
34	2	25	Wetzel	Magalia	Clayton M. Westfall ET AL
35	2	12	Wetzel	Magalia	David J. & Ralph O. Smith
36	2	6	Wetzel	Magalia	Albert Kocher HRS
37	2	32	Wetzel	Magalia	George S. Schupbach
38	2	28.2	Wetzel	Magalia	Franklin Ray Blake
39	2	26	Wetzel	Magalia	Stone Energy Corporation
40	2	25	Wetzel	Magalia	Stone Energy Corporation
41	2	25.1	Wetzel	Magalia	Stone Energy Corporation
42	2	48	Wetzel	Magalia	Heather Leigh Wetzel
43	2	8.1	Wetzel	Magalia	E. D. & Marzette A. Ziegenficker
44	2	8.2	Wetzel	Magalia	Ernest Dean Ziegenficker
45	2	17	Wetzel	Magalia	Tamara L. & Michael Stansberry
46	2	18.2	Wetzel	Magalia	Lama A. Neff
47	2	16	Wetzel	Magalia	Keith S. & Sena Wolaskiak
48	2	18.1	Wetzel	Magalia	David & Onon Neff
49	2	1.1	Wetzel	Proctor	Ronald J. Schupbach
50	2	11	Wetzel	Proctor	Coastal Forest Resources Co
51	2	14	Wetzel	Proctor	Coastal Forest Resources Co
52	2	16	Wetzel	Proctor	Nancy L. Garner

11/16/2018



**Notes:**  
 BLAKE 2H As-Drilled coordinates are:  
 NAD 83 UTM N: 4388,523.888 E: 517,250.840  
 NAD 83 UTM N: 4388,523.888 E: 517,250.840  
 BLAKE 2H As-Drilled KOP coordinates are:  
 NAD 83 UTM N: 419,924.880 E: 1,834,182.270  
 NAD 83 UTM N: 4388,523.888 E: 517,250.840  
 BLAKE 2H As-Drilled Bottom Hole coordinates are:  
 NAD 83 UTM N: 4388,523.888 E: 517,250.840  
 NAD 83 UTM N: 4388,523.888 E: 517,250.840  
 West Virginia Coordinates system of 1927 (North Zone)  
 based upon Differential GPS Measurements  
 Plat orientation Corner and well ties are based upon  
 the 8th north meridian  
 Well location references are based upon the 8th north  
 meridian  
 UTM coordinates are NAD83, Zone 17, Meters



- BLAKE PAD**
- BLAKE 2H
  - BLAKE 6H
  - BLAKE 3H
  - BLAKE 4H
  - BLAKE 1H
  - BLAKE 2H

**LEGEND**

- ⊕ Active Well Location
- Proposed Gas Well
- Located Corner, as noted
- Surface Tract Lines
- - - Reference Line
- ==== Lease Boundary
- ==== Creek or Drain
- W County Route
- W State Route



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 regulations issued and prescribed by the Department of Environmental Protection.

*Thomas C. Smith*  
 L. L. S. 687



DATE: JUNE 25 20 18	STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OIL AND GAS DIVISION	FILE NO.: W2030 (BK 50-21)
OPERATORS WELL NO.: BLAKE 2H		DRAWING NO.:
API WELL NO.		SCALE: 1" = 1000'
STATE COUNTY PERMIT		MINIMUM DEGREE OF ACCURACY:
		1:2500
		PROVEN SOURCE OF ELEVATION:
		NGS CORS Station
WELL TYPE: <input type="checkbox"/> OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> LIQUID INJECTION <input type="checkbox"/> WASTE DISPOSAL		
(IF GAS) PRODUCTION: <input type="checkbox"/> STORAGE <input type="checkbox"/> DEEP <input checked="" type="checkbox"/> SHALLOW		
LOCATION ELEVATION: 1298' WATERSHED: CAMP RUN QUADRANGLE: NEW MARTINSVILLE 7.2		
DISTRICT: Magalia SURFACE OWNER: Gary Lemons		
ROYALTY OWNER: Gary Lemons, ET UX LEASE NO: 873358		
PROPOSED WORK: <input type="checkbox"/> DRILL <input type="checkbox"/> CONVERT <input checked="" type="checkbox"/> DRILL DEEPER <input checked="" type="checkbox"/> FRACTURE OR STIMULATE <input type="checkbox"/> PLUG OFF OLD FORMATION		
<input type="checkbox"/> PERFORATE NEW FORMATION <input type="checkbox"/> OTHER PHYSICAL CHANGE IN WELL (SPECIFY)		
<input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> CLEAN OUT AND REPLUG TARGET FORMATION: Marcellus ESTIMATED DEPTH: 6786'		
DESIGNATED AGENT: Jason Ranson	WELL OPERATOR: EQT Production Company	
ADDRESS: 115 Professional Place PO Box 280	ADDRESS: 115 Professional Place PO Box 280	
Bridgport, WV 26330	Bridgport, WV 26330	

TOP HOLE AS-DRILLED