



## Stone Energy

Mary Prospect

Blake Pad

1H

OH

Design: As Drilled

## Standard Survey Report

04 March, 2014



Scientific Drilling

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06/02/2017



Project: Mary Prospect  
 Site: Blake Pad  
 Well: 1H  
 Wellbore: OH  
 Design: As Drilled



WELL DETAILS: 1H

+N/-S	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude
0.00	0.00	420250.00	1293.00 1634328.00	39° 38' 47.661 N	80° 47' 55.068 W

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well 1H, 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

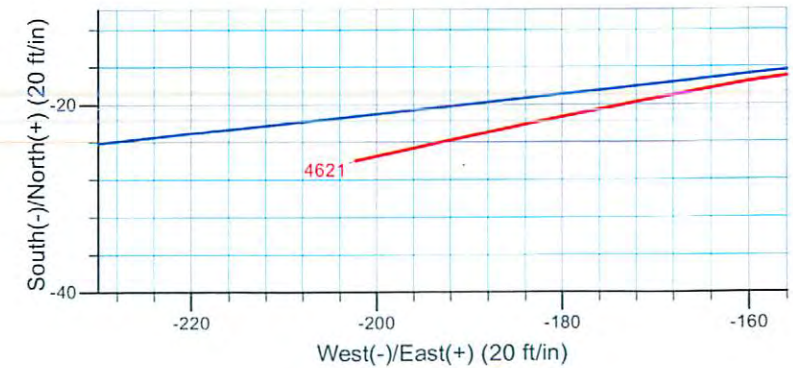
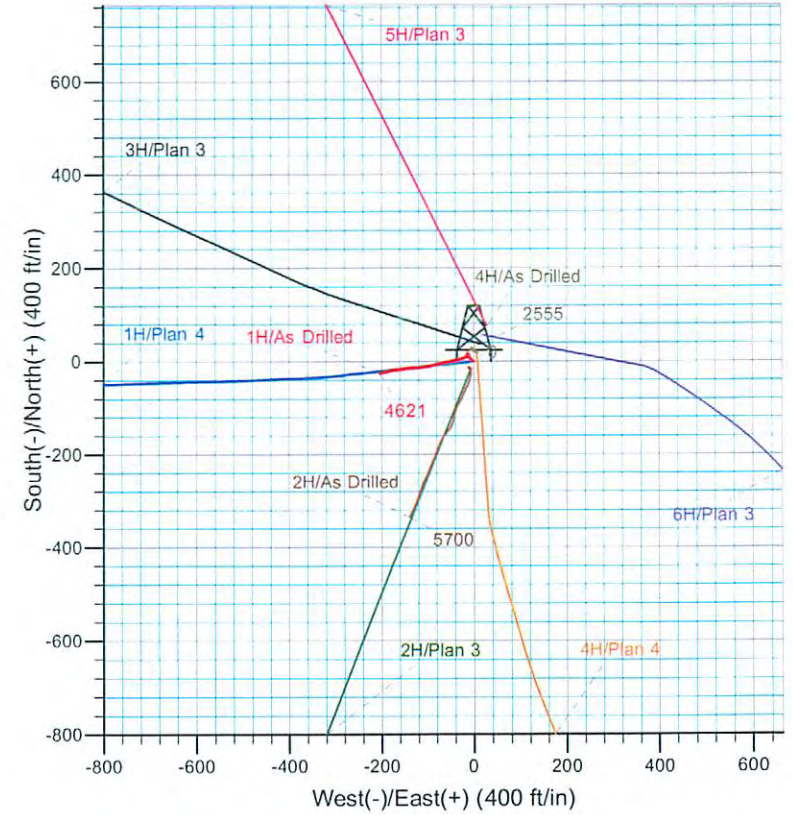
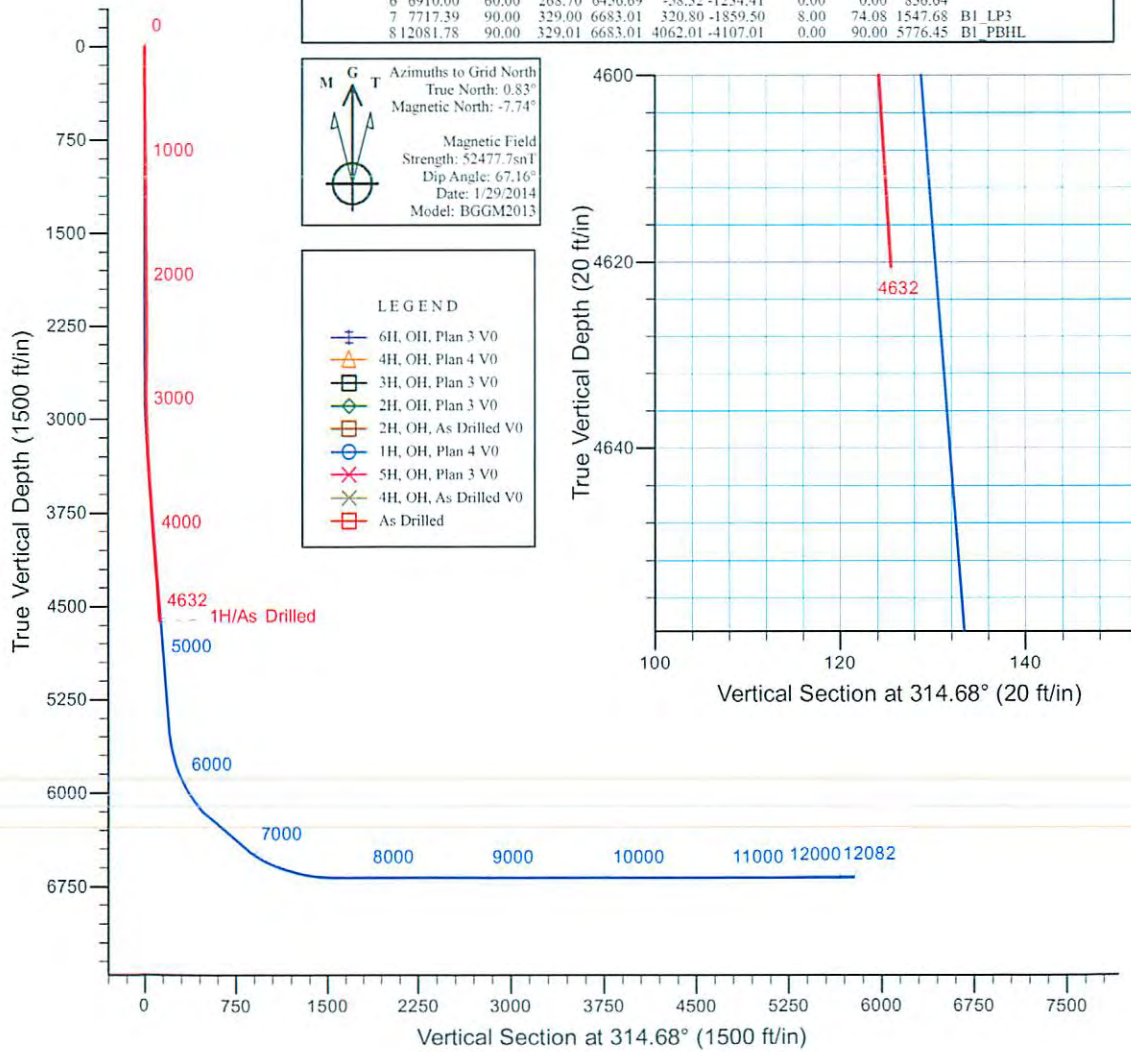
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2595.01	0.00	0.00	2595.01	0.00	0.00	0.00	0.00	0.00	
3	3295.01	7.00	264.00	3293.27	-4.46	-42.47	1.00	264.00	27.06	
4	5501.51	7.00	264.00	5483.32	-32.57	-309.91	0.00	0.00	197.44	
5	6385.31	60.00	268.70	6194.36	-48.01	-780.12	6.00	5.09	520.90	
6	6910.00	60.00	268.70	6456.69	-58.32	-1234.41	0.00	0.00	836.64	
7	7717.39	90.00	329.00	6683.01	320.80	-1859.50	8.00	74.08	1547.68	BI_LP3
8	12081.78	90.00	329.00	6683.01	4062.01	-4107.01	0.00	90.00	5776.45	BI_PBHL

Azimuths to Grid North  
 True North: 0.83°  
 Magnetic North: -7.74°

Magnetic Field  
 Strength: 52477.7nI  
 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
- 2H, OH, As Drilled V0
- 1H, OH, Plan 4 V0
- 5H, OH, Plan 3 V0
- 4H, OH, As Drilled V0
- As Drilled





Scientific Drilling  
Survey Report



<b>Company:</b>	Stone Energy	<b>Local Co-ordinate Reference:</b>	Well 1H
<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>	1H	<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

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

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

<b>Well</b>	1H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	420,250.00 usft	<b>Latitude:</b>	39° 38' 47.661 N
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	1,634,328.00 usft	<b>Longitude:</b>	80° 47' 55.068 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	0.00 ft	<b>Ground Level:</b>	1,293.00 ft

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

<b>Design</b>	As Drilled				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00		314.68

<b>Survey Program</b>	<b>Date</b>	3/4/2014			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	2,354.00	Survey 1 - Vaughn Gyro (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
2,583.00	4,632.00	Survey 2 - SDI MWD (OH)	MWD SDI	MWD - Standard ver 1.0.1	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.46	310.69	100.00	0.26	-0.30	0.40	0.46	0.46		0.00
<b>First Vaughn Gyro Survey</b>										
200.00	0.60	316.42	199.99	0.90	-0.97	1.32	0.15	0.14		5.73
300.00	0.73	309.42	299.99	1.69	-1.82	2.48	0.15	0.13		-7.00
400.00	0.51	305.93	399.98	2.35	-2.68	3.56	0.22	-0.22		-3.49
500.00	0.52	306.06	499.98	2.88	-3.40	4.44	0.01	0.01		0.13
600.00	0.53	302.51	599.97	3.40	-4.16	5.35	0.03	0.01		-3.55



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<b>Well:</b>	1H	<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

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)	
700.00	0.58	308.35	699.97	3.96	-4.95	6.30	0.08	0.05	5.84	
800.00	0.53	309.74	799.96	4.57	-5.70	7.26	0.05	-0.05	1.39	
900.00	0.69	315.95	899.96	5.30	-6.47	8.33	0.17	0.16	6.21	
1,000.00	0.66	318.77	999.95	6.16	-7.27	9.50	0.04	-0.03	2.82	
1,100.00	0.70	326.02	1,099.94	7.10	-7.99	10.68	0.09	0.04	7.25	
1,200.00	0.71	327.50	1,199.94	8.13	-8.67	11.88	0.02	0.01	1.48	
1,300.00	0.74	323.26	1,299.93	9.17	-9.39	13.12	0.06	0.03	-4.24	
1,400.00	0.76	334.30	1,399.92	10.29	-10.06	14.39	0.15	0.02	11.04	
1,500.00	0.78	332.93	1,499.91	11.49	-10.66	15.66	0.03	0.02	-1.37	
1,600.00	0.80	327.54	1,599.90	12.69	-11.34	16.98	0.08	0.02	-5.39	
1,700.00	0.82	326.34	1,699.89	13.87	-12.11	18.37	0.03	0.02	-1.20	
1,800.00	0.55	330.69	1,799.88	14.88	-12.74	19.53	0.27	-0.27	4.35	
1,900.00	0.37	335.86	1,899.88	15.60	-13.11	20.29	0.18	-0.18	5.17	
2,000.00	0.20	333.66	1,999.88	16.05	-13.32	20.76	0.17	-0.17	-2.20	
2,100.00	0.05	11.66	2,099.88	16.25	-13.39	20.95	0.16	-0.15	38.00	
2,200.00	0.39	122.32	2,199.88	16.11	-13.09	20.64	0.41	0.34	110.66	
2,300.00	0.37	120.31	2,299.88	15.76	-12.53	19.99	0.02	-0.02	-2.01	
2,354.00	0.39	124.80	2,353.88	15.57	-12.23	19.64	0.07	0.04	8.31	
<b>Last Vaughn Gyro Survey</b>										
2,583.00	0.71	131.22	2,582.87	14.19	-10.52	17.46	0.14	0.14	2.80	
<b>First SDI MWD Survey</b>										
2,677.00	0.59	169.87	2,676.86	13.33	-9.99	16.48	0.47	-0.13	41.12	
2,772.00	1.36	219.26	2,771.85	11.98	-10.62	15.97	1.13	0.81	51.99	
2,866.00	2.17	241.29	2,865.80	10.26	-12.89	16.38	1.11	0.86	23.44	
2,960.00	3.09	244.39	2,959.70	8.31	-16.73	17.74	0.99	0.98	3.30	
3,054.00	3.43	245.89	3,053.55	6.06	-21.59	19.61	0.37	0.36	1.60	
3,149.00	4.38	254.27	3,148.33	3.92	-27.67	22.43	1.16	1.00	8.82	
3,242.00	4.85	257.72	3,241.03	2.12	-34.93	26.33	0.59	0.51	3.71	
3,336.00	6.07	260.78	3,334.60	0.48	-43.72	31.42	1.33	1.30	3.26	
3,431.00	7.10	257.40	3,428.97	-1.61	-54.41	37.55	1.16	1.08	-3.56	
3,525.00	7.58	257.72	3,522.20	-4.19	-66.14	44.07	0.51	0.51	0.34	
3,619.00	7.63	255.20	3,615.37	-7.11	-78.23	50.62	0.36	0.05	-2.68	
3,713.00	7.88	258.60	3,708.52	-9.97	-90.58	57.39	0.56	0.27	3.62	
3,807.00	7.72	261.07	3,801.65	-12.23	-103.13	64.73	0.40	-0.17	2.63	
3,902.00	6.87	267.05	3,895.88	-13.51	-115.11	72.34	1.20	-0.89	6.29	
3,996.00	6.69	266.92	3,989.22	-14.09	-126.19	79.81	0.19	-0.19	-0.14	
4,090.00	7.00	265.31	4,082.55	-14.86	-137.37	87.22	0.39	0.33	-1.71	
4,185.00	7.04	263.31	4,176.84	-16.01	-148.92	94.62	0.26	0.04	-2.11	
4,279.00	6.89	259.86	4,270.14	-17.67	-160.19	101.47	0.47	-0.16	-3.67	
4,373.00	7.18	259.79	4,363.44	-19.70	-171.52	108.09	0.31	0.31	-0.07	
4,468.00	6.91	258.09	4,457.72	-21.94	-182.96	114.65	0.36	-0.28	-1.79	
<b>Last SDI MWD Survey</b>										
4,632.00	6.91	258.09	4,620.53	-26.01	-202.26	125.52	0.00	0.00	0.00	
<b>Projection to Bit</b>										