

SUR: E-15-16s-37e, 1992/N & 817W

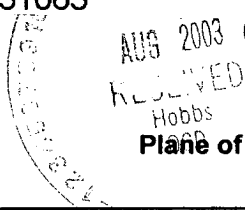
BHL: E-15-16s-37e, 2297/N & 981W

API # 30-025-31063

Directional Survey Report

Well ID: 819460

Well Bore: Original Well Bore



Chesapeake Operating

Well Name: Billy State 1-15

Plane of Vertical Section: 151.1 degrees

Survey Type	Meas. Depth	Inc.	Azimuth	TVD	Coordinates		Closure	Vertical Section	Dog Leg Severity
					N-S	E-W			
** Tieln	8335.0	0.77	223.1	8334.6	S 19.1	E 4.5		18.9	
MWD	8377.0	3.70	170.3	8376.6	S 20.7	E 4.5	21.2	20.3	7.838
MWD	8408.0	4.80	169.2	8407.5	S 22.9	E 4.9	23.5	22.5	3.558
MWD	8440.0	4.80	166.8	8439.4	S 25.5	E 5.5	26.1	25.0	0.628
MWD	8471.0	4.80	164.3	8470.3	S 28.1	E 6.2	28.7	27.5	0.675
MWD	8503.0	4.80	167.5	8502.1	S 30.6	E 6.8	31.4	30.1	0.837
MWD	8567.0	4.60	167.1	8565.9	S 35.8	E 8.0	36.6	35.2	0.317
MWD	8630.0	4.90	166.0	8628.7	S 40.8	E 9.2	41.9	40.2	0.498
MWD	8693.0	5.40	156.6	8691.5	S 46.2	E 11.0	47.5	45.7	1.554
MWD	8756.0	5.40	155.9	8754.2	S 51.6	E 13.4	53.3	51.6	0.105
MWD	8819.0	5.50	153.1	8816.9	S 57.0	E 16.0	59.2	57.6	0.451
MWD	8882.0	5.40	153.8	8879.6	S 62.3	E 18.6	65.1	63.6	0.191
MWD	8945.0	5.70	149.5	8942.3	S 67.7	E 21.5	71.0	69.7	0.814
MWD	9008.0	5.80	149.2	9005.0	S 73.1	E 24.8	77.2	76.0	0.166
MWD	9071.0	5.90	149.2	9067.7	S 78.6	E 28.0	83.5	82.4	0.159
MWD	9134.0	5.40	149.5	9130.4	S 84.0	E 31.2	89.6	88.6	0.795
MWD	9196.0	5.50	151.3	9192.1	S 89.1	E 34.1	95.4	94.5	0.319
MWD	9259.0	5.60	153.4	9254.8	S 94.5	E 36.9	101.5	100.6	0.359
MWD	9323.0	6.00	147.4	9318.5	S 100.1	E 40.1	107.9	107.0	1.134
MWD	9386.0	5.80	147.4	9381.1	S 105.6	E 43.6	114.2	113.5	0.317
MWD	9448.0	5.80	147.1	9442.8	S 110.8	E 47.0	120.4	119.7	0.049
MWD	9511.0	5.50	140.4	9505.5	S 115.8	E 50.7	126.4	125.9	1.149
MWD	9574.0	5.50	149.9	9568.2	S 120.8	E 54.1	132.3	131.9	1.444
MWD	9637.0	5.90	148.8	9630.9	S 126.2	E 57.3	138.6	138.1	0.658
MWD	9700.0	5.90	151.9	9693.6	S 131.8	E 60.5	145.0	144.6	0.506
MWD	9763.0	5.50	150.6	9756.3	S 137.3	E 63.5	151.2	150.9	0.667
MWD	9825.0	5.70	152.7	9818.0	S 142.6	E 66.4	157.3	156.9	0.462
MWD	9887.0	5.80	152.7	9879.7	S 148.1	E 69.2	163.5	163.1	0.161
MWD	9951.0	5.80	149.2	9943.3	S 153.8	E 72.4	169.9	169.6	0.553
MWD	10014.0	5.80	149.5	10006.0	S 159.2	E 75.6	176.3	175.9	0.048

Directional Survey Report

Chesapeake Operating

Well ID: 819460

Well Name: Billy State 1-15

Well Bore: Original Well Bore

Plane of Vertical Section: 151.1 degrees

Survey Type	Meas. Depth	Inc.	Azimuth	TVD	Coordinates		Closure	Vertical Section	Dog Leg Severity
					N-S	E-W			
MWD	10076.0	5.90	148.1	10067.7	S 164.6	E 78.9	182.6	182.3	0.281
MWD	10138.0	5.70	146.7	10129.4	S 169.9	E 82.3	188.8	188.5	0.395
MWD	10202.0	5.30	150.6	10193.1	S 175.2	E 85.5	194.9	194.6	0.855
MWD	10266.0	5.50	149.9	10256.8	S 180.4	E 88.4	200.9	200.7	0.329
MWD	10328.0	5.70	150.9	10318.5	S 185.6	E 91.4	206.9	206.7	0.359
MWD	10391.0	5.60	151.9	10381.2	S 191.1	E 94.4	213.1	212.9	0.223
MWD	10454.0	5.50	152.3	10443.9	S 196.5	E 97.3	219.2	219.0	0.170
MWD	10517.0	5.60	155.5	10506.6	S 201.9	E 99.9	225.3	225.1	0.516
MWD	10580.0	5.50	159.4	10569.3	S 207.6	E 102.3	231.4	231.1	0.619
MWD	10643.0	5.60	147.4	10632.0	S 213.0	E 105.0	237.5	237.2	1.846
MWD	10705.0	5.80	152.3	10693.7	S 218.3	E 108.1	243.6	243.3	0.848
MWD	10768.0	6.20	149.9	10756.4	S 224.1	E 111.3	250.2	249.9	0.749
MWD	10830.0	6.30	150.2	10818.0	S 229.9	E 114.6	256.9	256.7	0.170
MWD	10893.0	6.00	151.3	10880.6	S 235.8	E 117.9	263.6	263.4	0.512
MWD	10957.0	5.70	143.9	10944.3	S 241.3	E 121.4	270.1	269.9	1.267
MWD	11019.0	5.70	142.8	11006.0	S 246.2	E 125.1	276.2	276.0	0.176
MWD	11082.0	5.70	143.9	11068.7	S 251.3	E 128.8	282.4	282.2	0.173
MWD	11145.0	5.40	144.9	11131.4	S 256.2	E 132.4	288.4	288.3	0.500
MWD	11208.0	5.20	149.9	11194.1	S 261.1	E 135.5	294.2	294.1	0.799
MWD	11270.0	4.80	149.2	11255.9	S 265.8	E 138.2	299.6	299.5	0.653
MWD	11333.0	4.70	152.3	11318.7	S 270.3	E 140.8	304.8	304.7	0.437
MWD	11395.0	4.70	148.1	11380.4	S 274.7	E 143.3	309.9	309.8	0.555
MWD	11458.0	5.50	141.8	11443.2	S 279.3	E 146.5	315.4	315.3	1.548
MWD	11521.0	5.00	143.9	11505.9	S 283.9	E 150.0	321.1	321.0	0.850
MWD	11584.0	5.30	143.9	11568.7	S 288.5	E 153.4	326.7	326.6	0.476
MWD	11647.0	5.20	145.9	11631.4	S 293.2	E 156.7	332.4	332.4	0.331
MWD	11710.0	5.10	147.1	11694.2	S 297.9	E 159.8	338.0	338.0	0.233
MWD	11755.0	5.30	146.4	11739.0	S 301.3	E 162.0	342.1	342.1	0.466
MWD	11800.0	5.30	146.0	11783.8	S 304.7	E 164.3	346.2	346.2	0.082

