

Directional Survey Report

Chesapeake Operating

Well ID: 819420

Well Bore: Original Well Bore

Well Name: Walter 1-4
L-4-17s-37e 2260/S & 718/W
Plane of Vertical Section: 0.0 degrees
3D-025-35919

Survey Type	Meas. Depth	Inc.	Azimuth	TVD	Coordinates N-S	E-W	Closure	Vertical Section	Dog Leg Severity
** Tieln	0.0	0.00	0.0	0.0					
GMS	200.0	0.75	125.0	200.0	S 0.8	E 1.1	1.3	-0.8	0.375
MSS	250.0	0.75							
GMS	400.0	0.75	169.0	400.0	S 2.8	E 2.4	3.7	-2.8	0.281
MSS	450.0	1.00							
GMS	600.0	0.75	155.0	600.0	S 5.3	E 3.2	6.2	-5.3	0.091
GMS	800.0	0.75	182.0	799.9	S 7.8	E 3.7	8.6	-7.8	0.175
MSS	990.0	0.25							
GMS	1000.0	0.50	144.0	999.9	S 9.8	E 4.2	10.6	-9.8	0.235
GMS	1200.0	0.25	208.0	1199.9	S 10.9	E 4.5	11.7	-10.9	0.225
GMS	1400.0	0.50	228.0	1399.9	S 11.8	E 3.6	12.4	-11.8	0.139
MSS	1495.0	0.25							
GMS	1600.0	0.25	197.0	1599.9	S 12.8	E 2.9	13.1	-12.8	0.157
GMS	1800.0	0.25	218.0	1799.9	S 13.6	E 2.5	13.8	-13.6	0.046
MSS	1968.0	0.50							
GMS	2000.0	0.50	186.0	1999.9	S 14.8	E 2.1	14.9	-14.8	0.158
GMS	2200.0	0.50	215.0	2199.9	S 16.4	E 1.5	16.5	-16.4	0.125
MSS	2346.0	0.50							
GMS	2400.0	0.50	206.0	2399.9	S 17.9	E 0.6	17.9	-17.9	0.039
MSS	2589.0	0.50							
GMS	2600.0	0.25	213.0	2599.9	S 19.0	W 0.0	19.0	-19.0	0.127
GMS	2800.0	0.50	227.0	2799.9	S 20.0	W 0.9	20.0	-20.0	0.132
GMS	3000.0	0.25	37.0	2999.9	S 20.2	W 1.3	20.3	-20.2	0.374
MSS	3039.0	0.75							
GMS	3200.0	0.75	25.0	3199.9	S 18.7	W 0.4	18.7	-18.7	0.254
GMS	3400.0	0.50	40.0	3399.9	S 16.9	E 0.7	16.9	-16.9	0.148
MSS	3515.0	0.50							
GMS	3600.0	0.25	27.0	3599.9	S 15.8	E 1.4	15.9	-15.8	0.131
GMS	3800.0	0.25	9.0	3799.9	S 15.0	E 1.7	15.1	-15.0	0.039
MSS	3987.0	0.50							

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GMS	4000.0	0.50	5.0	3999.9	S 13.7	E 1.8	13.8	-13.7	0.126
GMS	4200.0	0.75	338.0	4199.8	S 11.6	E 1.4	11.7	-11.6	0.190
** Tieln	4270.0	0.50	295.0	4269.8	S 11.0	E 1.0	11.1	-11.0	
MSS	4781.0	1.00	346.0	4780.8	S 5.8	W 2.1	6.1	-5.8	0.154
MSS	5387.0	0.50	343.0	5386.7	N 1.9	W 4.2	4.6	1.9	0.083
MSS	5892.0	1.00	344.0	5891.7	N 8.2	W 6.0	10.2	8.2	0.099
MSS	6397.0	1.00	358.5	6396.6	N 16.9	W 7.4	18.4	16.9	0.050
MSS	6903.0	0.50	348.5	6902.6	N 23.5	W 7.9	24.8	23.5	0.102
MSS	7438.0	1.75	358.5	7437.5	N 33.9	W 8.6	35.0	33.9	0.236
MSS	7692.0	1.00	358.0	7691.4	N 40.0	W 8.8	41.0	40.0	0.295
MSS	7945.0	1.00	348.5	7944.4	N 44.4	W 9.3	45.3	44.4	0.065
MSS	8197.0	1.50	348.5	8196.3	N 49.8	W 10.4	50.8	49.8	0.198
MSS	8451.0	1.75	323.5	8450.2	N 56.1	W 13.4	57.7	56.1	0.293
MSS	8577.0	1.50	328.5	8576.1	N 59.1	W 15.4	61.0	59.1	0.228
MSS	8855.0	1.50	323.5	8854.1	N 65.1	W 19.4	67.9	65.1	0.047
MSS	9052.0	4.00	334.5	9050.8	N 73.4	W 23.9	77.2	73.4	1.291
MSS	9200.0	4.25	334.5	9198.4	N 83.0	W 28.5	87.8	83.0	0.169
MSS	9231.0	4.00	334.5	9229.3	N 85.0	W 29.5	90.0	85.0	0.806
MSS	9290.0	4.25	332.5	9288.2	N 88.8	W 31.4	94.2	88.8	0.489
MSS	9322.0	4.25	330.0	9320.1	N 90.9	W 32.5	96.5	90.9	0.579
MSS	9395.0	4.00	333.0	9392.9	N 95.5	W 35.0	101.7	95.5	0.452
MSS	9426.0	4.25	334.0	9423.8	N 97.5	W 36.0	103.9	97.5	0.839
MSS	9583.0	2.20	328.9	9580.6	N 105.3	W 40.1	112.7	105.3	1.317
MSS	9686.0	1.30	276.6	9683.5	N 107.1	W 42.3	115.2	107.1	1.690
MSS	9758.0	1.40	246.0	9755.5	N 106.9	W 43.9	115.5	106.9	0.998
MSS	9821.0	1.50	205.0	9818.5	N 105.8	W 45.0	115.0	105.8	1.619
MSS	9885.0	2.00	171.2	9882.5	N 103.9	W 45.1	113.3	103.9	1.757
MSS	9980.0	1.80	175.5	9977.4	N 100.8	W 44.8	110.3	100.8	0.258
MSS	10107.0	1.40	138.8	10104.4	N 97.7	W 43.6	106.9	97.7	0.848
MSS	10202.0	1.90	142.8	10199.3	N 95.5	W 41.9	104.3	95.5	0.540

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					N-S	E-W			
MSS	10296.0	2.70	158.9	10293.3	N 92.2	W 40.1	100.6	92.2	1.086
MSS	10390.0	1.90	172.4	10387.2	N 88.6	W 39.1	96.9	88.6	1.022
MSS	10515.0	3.40	149.3	10512.0	N 83.4	W 37.0	91.2	83.4	1.450
MSS	10608.0	3.40	159.5	10604.9	N 78.4	W 34.6	85.7	78.4	0.650
MSS	10700.0	3.00	165.7	10696.7	N 73.5	W 33.0	80.6	73.5	0.574
MSS	10763.0	2.60	167.7	10759.7	N 70.5	W 32.3	77.6	70.5	0.653
MSS	10825.0	2.30	170.0	10821.6	N 67.9	W 31.8	75.0	67.9	0.509
MSS	10887.0	2.50	176.2	10883.6	N 65.4	W 31.5	72.6	65.4	0.528
MSS	10950.0	2.40	185.9	10946.5	N 62.7	W 31.6	70.2	62.7	0.676
MSS	11350.0	2.25							

Calculations using Minimum Curvature Method

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Signature

Robert C. Jory

Subscribed and sworn to before me on this 5th day of November, 2002

Connie B. Turner

Notary Public

My Commission expires September 2, 2004

Commission No. 12452

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