

30-015-37937

Directional Survey

Well ID: 632392

Field: South Eddy

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FEB 18 2011

NMOCD ARTESIA

Chesapeake Operating, Inc.

Well Name: PLU Pierce Canyon 8 State 1H

Sect: 8 Town: 25S Rng: 30E County: Eddy State: NM

Survey	Measured	Inclination		Azimuth		TVD		Coordinates		Closure		Vertical	Dog Leg
Type	Depth							N-S	E-W			Section	Severity
Wellbore:	Original Well Bore	Plane of Vertical Section: 180.0											
** Tieln	0.0	0.00	0.0	0.0	0.0	N 0.0	E 0.0					0.0	
INC-T	206.0	1.00	0.0	206.0	N 1.8	E 0.0	1.8					-1.8	0.485
INC-T	531.0	1.75			N 0.0	E 0.0							
INC-T	729.0	1.40	190.2	728.9	N 0.1	W 1.1	1.1					-0.1	0.457
MWD	824.0	2.20	197.5	823.9	S 2.8	W 1.9	3.4					2.8	0.874
MWD	920.0	2.50	192.4	919.8	S 6.6	W 2.9	7.2					6.6	0.381
MWD	1,015.0	2.50	174.1	1,014.7	S 10.7	W 3.1	11.1					10.7	0.837
MWD	1,110.0	2.20	153.0	1,109.7	S 14.4	W 2.1	14.5					14.4	0.957
MWD	1,205.0	1.50	145.3	1,204.6	S 17.0	W 0.5	17.0					17.0	0.780
MWD	1,300.0	1.40	145.0	1,299.6	S 19.0	E 0.8	19.0					19.0	0.106
MWD	1,396.0	1.40	153.8	1,395.5	S 21.0	E 2.0	21.1					21.0	0.224
MWD	1,491.0	1.30	166.5	1,490.5	S 23.1	E 2.8	23.3					23.1	0.331
MWD	1,586.0	1.40	175.5	1,585.5	S 25.3	E 3.1	25.5					25.3	0.246
MWD	1,681.0	1.90	206.2	1,680.5	S 27.9	E 2.5	28.0					27.9	1.050
MWD	1,776.0	1.60	236.9	1,775.4	S 30.0	E 0.7	30.0					30.0	1.022
MWD	1,871.0	2.00	263.3	1,870.4	S 30.9	W 2.0	31.0					30.9	0.957
MWD	1,966.0	2.30	278.4	1,965.3	S 30.8	W 5.6	31.3					30.8	0.672
MWD	2,062.0	1.80	183.8	2,061.3	S 32.1	W 7.6	33.0					32.1	3.158
MWD	2,157.0	2.10	277.9	2,156.2	S 33.3	W 9.4	34.6					33.3	3.012
MWD	2,252.0	2.40	275.1	2,251.1	S 32.9	W 13.1	35.4					32.9	0.336
MWD	2,347.0	2.10	269.9	2,346.1	S 32.7	W 16.8	36.8					32.7	0.382
MWD	2,442.0	1.20	258.6	2,441.0	S 32.9	W 19.5	38.3					32.9	1.003
MWD	2,537.0	1.40	262.5	2,536.0	S 33.3	W 21.7	39.7					33.3	0.230
MWD	2,633.0	2.20	273.7	2,632.0	S 33.3	W 24.7	41.5					33.3	0.906
MWD	2,728.0	1.90	283.1	2,726.9	S 32.8	W 28.0	43.2					32.8	0.473
MWD	2,823.0	0.90	346.4	2,821.9	S 31.8	W 29.7	43.5					31.8	1.787
MWD	2,918.0	1.00	33.0	2,916.9	S 30.3	W 29.5	42.3					30.3	0.797
MWD	3,013.0	1.10	76.6	3,011.9	S 29.4	W 28.1	40.7					29.4	0.827
MWD	3,108.0	2.30	92.4	3,106.8	S 29.3	W 25.3	38.7					29.3	1.344
MWD	3,203.0	2.60	100.4	3,201.7	S 29.8	W 21.3	36.6					29.8	0.478
MWD	3,298.0	2.20	124.0	3,296.6	S 31.2	W 17.7	35.8					31.2	1.112
MWD	3,394.0	2.00	162.1	3,392.6	S 33.8	W 15.6	37.2					33.8	1.441
MWD	3,489.0	2.20	171.5	3,487.5	S 37.2	W 14.9	40.0					37.2	0.419
MWD	3,584.0	1.70	183.6	3,582.5	S 40.4	W 14.7	43.0					40.4	0.679
MWD	3,679.0	1.50	186.4	3,677.4	S 43.0	W 14.9	45.5					43.0	0.226
EM	3,792.0	1.60	189.6	3,790.4	S 46.1	W 15.3	48.5					46.1	0.117
EM	3,887.0	1.30	201.4	3,885.4	S 48.4	W 15.9	50.9					48.4	0.444
EM	3,982.0	1.50	194.3	3,980.3	S 50.6	W 16.6	53.2					50.6	0.278
EM	4,077.0	1.20	206.1	4,075.3	S 52.7	W 17.4	55.5					52.7	0.429
EM	4,172.0	1.50	202.8	4,170.3	S 54.7	W 18.3	57.7					54.7	0.326
EM	4,267.0	1.50	209.4	4,265.2	S 56.9	W 19.4	60.2					56.9	0.182

EM	4,362.0	1.10	207.7	4,360.2	S 58.8	W 20.4	62.3	58.8	0.423
EM	4,457.0	1.40	209.3	4,455.2	S 60.7	W 21.4	64.3	60.7	0.318
EM	4,553.0	1.10	209.3	4,551.2	S 62.5	W 22.5	66.4	62.5	0.312
EM	4,648.0	1.00	223.2	4,646.2	S 63.9	W 23.5	68.1	63.9	0.287
EM	4,743.0	1.10	214.5	4,741.1	S 65.2	W 24.5	69.7	65.2	0.198
EM	4,838.0	0.80	206.4	4,836.1	S 66.6	W 25.4	71.2	66.6	0.345
EM	4,933.0	0.70	228.7	4,931.1	S 67.6	W 26.1	72.4	67.6	0.322
EM	5,029.0	0.90	224.1	5,027.1	S 68.5	W 27.1	73.6	68.5	0.219
EM	5,124.0	1.10	274.5	5,122.1	S 69.0	W 28.5	74.6	69.0	0.916
EM	5,219.0	1.00	270.1	5,217.1	S 68.9	W 30.2	75.2	68.9	0.135
EM	5,314.0	0.80	254.0	5,312.1	S 69.1	W 31.7	76.0	69.1	0.337
EM	5,505.0	0.30	231.0	5,503.1	S 69.7	W 33.4	77.3	69.7	0.281
EM	5,599.0	0.50	205.9	5,597.1	S 70.3	W 33.7	77.9	70.3	0.278
EM	5,694.0	0.60	192.5	5,692.1	S 71.1	W 34.0	78.8	71.1	0.171
EM	5,790.0	0.70	192.0	5,788.0	S 72.2	W 34.2	79.9	72.2	0.104
EM	5,885.0	1.20	221.0	5,883.0	S 73.5	W 35.0	81.4	73.5	0.714
EM	5,980.0	1.20	223.1	5,978.0	S 75.0	W 36.4	83.3	75.0	0.046
EM	6,075.0	1.40	224.0	6,073.0	S 76.5	W 37.8	85.4	76.5	0.212
EM	6,177.0	1.25	226.2	6,175.0	S 78.2	W 39.5	87.6	78.2	0.155
EM	6,265.0	0.80	211.7	6,262.9	S 79.4	W 40.5	89.1	79.4	0.586
EM	6,360.0	0.80	194.3	6,357.9	S 80.6	W 41.0	90.4	80.6	0.255
EM	6,455.0	1.10	178.3	6,452.9	S 82.2	W 41.2	91.9	82.2	0.419
EM	6,550.0	0.70	180.8	6,547.9	S 83.7	W 41.2	93.2	83.7	0.423
EM	6,645.0	1.00	182.1	6,642.9	S 85.1	W 41.2	94.5	85.1	0.316
EM	6,741.0	1.00	181.1	6,738.9	S 86.7	W 41.2	96.0	86.7	0.018
EM	6,836.0	1.30	182.2	6,833.9	S 88.6	W 41.3	97.8	88.6	0.317
EM	6,932.0	1.40	171.2	6,929.8	S 90.9	W 41.2	99.8	90.9	0.289
EM	7,027.0	1.40	174.2	7,024.8	S 93.2	W 40.9	101.8	93.2	0.077
EM	7,122.0	1.50	168.5	7,119.8	S 95.6	W 40.5	103.8	95.6	0.185
EM	7,217.0	1.90	173.2	7,214.7	S 98.3	W 40.1	106.2	98.3	0.446
EM	7,312.0	1.60	172.1	7,309.7	S 101.2	W 39.7	108.7	101.2	0.318
** Tleln	7,533.5	2.14	172.0	7,531.3	S 112.8	W 20.4	115.1	108.4	0.244
MWD	7,681.0	1.90	120.8	7,678.7	S 116.7	W 17.9	118.1	116.7	1.193
MWD	7,708.0	1.50	117.7	7,705.7	S 117.1	W 17.2	118.4	117.1	1.520
MWD	7,740.0	3.40	164.8	7,737.7	S 118.2	W 16.6	119.4	118.2	8.188
MWD	7,772.0	9.50	159.5	7,769.5	S 121.6	W 15.4	122.6	121.6	19.133
MWD	7,804.0	16.00	158.9	7,800.7	S 128.2	W 12.9	128.9	128.2	20.316
MWD	7,835.0	21.10	162.7	7,830.0	S 137.5	W 9.7	137.9	137.5	16.899
MWD	7,867.0	24.60	166.9	7,859.5	S 149.5	W 6.5	149.7	149.5	12.060
MWD	7,899.0	26.90	169.9	7,888.4	S 163.1	W 3.7	163.2	163.1	8.259
MWD	7,931.0	29.20	173.3	7,916.6	S 178.0	W 1.5	178.0	178.0	8.751
MWD	7,962.0	31.50	175.8	7,943.3	S 193.6	W 0.0	193.6	193.6	8.463
MWD	7,994.0	31.20	178.8	7,970.7	S 210.2	E 0.8	210.2	210.2	4.966
MWD	8,026.0	33.80	178.8	7,997.7	S 227.4	E 1.1	227.4	227.4	8.125
MWD	8,058.0	37.80	178.4	8,023.6	S 246.1	E 1.6	246.1	246.1	12.521
MWD	8,089.0	41.60	177.6	8,047.5	S 265.9	E 2.3	265.9	265.9	12.368
MWD	8,121.0	46.30	177.5	8,070.5	S 288.1	E 3.2	288.1	288.1	14.689
MWD	8,153.0	52.00	173.9	8,091.4	S 312.2	E 5.1	312.3	312.2	19.736

MWD	8,184.0	59.10	172.9	8,108.9	S 337.6	E 8.0	337.7	337.6	23.057
MWD	8,216.0	66.70	175.0	8,123.5	S 365.9	E 11.0	366.1	365.9	24.456
MWD	8,248.0	72.90	179.3	8,134.6	S 395.9	E 12.5	396.1	395.9	23.113
MWD	8,280.0	78.20	183.0	8,142.5	S 426.8	E 11.8	427.0	426.8	19.989
MWD	8,311.0	82.80	184.5	8,147.7	S 457.3	E 9.8	457.5	457.3	15.587
MWD	8,330.0	85.40	184.3	8,149.6	S 476.2	E 8.4	476.3	476.2	13.724
MWD	8,362.0	90.70	182.4	8,150.7	S 508.1	E 6.5	508.1	508.1	17.593
MWD	8,394.0	92.20	181.4	8,149.9	S 540.1	E 5.5	540.1	540.1	5.633
MWD	8,489.0	92.10	181.0	8,146.3	S 635.0	E 3.5	635.0	635.0	0.434
MWD	8,584.0	92.30	181.3	8,142.7	S 729.9	E 1.6	729.9	729.9	0.379
MWD	8,680.0	92.80	182.7	8,138.4	S 825.7	W 1.8	825.7	825.7	1.547
MWD	8,775.0	90.80	184.0	8,135.4	S 920.5	W 7.3	920.6	920.5	2.511
MWD	8,870.0	89.00	183.7	8,135.6	S 1,015.3	W 13.7	1,015.4	1,015.3	1.921
MWD	8,965.0	89.40	183.6	8,136.9	S 1,110.1	W 19.8	1,110.3	1,110.1	0.434
MWD	9,061.0	90.00	183.3	8,137.4	S 1,205.9	W 25.5	1,206.2	1,205.9	0.699
MWD	9,156.0	90.60	179.9	8,136.9	S 1,300.9	W 28.2	1,301.2	1,300.9	3.634
MWD	9,251.0	91.40	179.3	8,135.3	S 1,395.9	W 27.5	1,396.1	1,395.9	1.053
MWD	9,346.0	90.90	179.9	8,133.4	S 1,490.8	W 26.9	1,491.1	1,490.8	0.822
MWD	9,441.0	91.20	179.0	8,131.6	S 1,585.8	W 25.9	1,586.0	1,585.8	0.998
MWD	9,537.0	91.40	178.9	8,129.4	S 1,681.8	W 24.2	1,681.9	1,681.8	0.233
MWD	9,632.0	92.10	180.0	8,126.5	S 1,776.7	W 23.3	1,776.9	1,776.7	1.372
MWD	9,727.0	91.20	180.9	8,123.8	S 1,871.7	W 24.0	1,871.8	1,871.7	1.339
MWD	9,822.0	89.10	180.2	8,123.6	S 1,966.7	W 24.9	1,966.8	1,966.7	2.330
MWD	9,918.0	90.20	180.4	8,124.1	S 2,062.7	W 25.4	2,062.8	2,062.7	1.165
MWD	10,013.0	91.10	180.6	8,123.1	S 2,157.7	W 26.3	2,157.8	2,157.7	0.970
MWD	10,108.0	89.80	181.9	8,122.3	S 2,252.6	W 28.3	2,252.8	2,252.6	1.935
MWD	10,203.0	90.50	181.6	8,122.1	S 2,347.6	W 31.2	2,347.8	2,347.6	0.802
MWD	10,298.0	89.20	180.8	8,122.3	S 2,442.6	W 33.2	2,442.8	2,442.6	1.607
MWD	10,394.0	89.60	179.8	8,123.3	S 2,538.5	W 33.7	2,538.8	2,538.5	1.122
MWD	10,489.0	88.50	178.4	8,124.9	S 2,633.5	W 32.2	2,633.7	2,633.5	1.874
MWD	10,584.0	88.60	177.8	8,127.3	S 2,728.4	W 29.1	2,728.6	2,728.4	0.640
MWD	10,679.0	88.80	177.2	8,129.5	S 2,823.3	W 24.9	2,823.4	2,823.3	0.666
MWD	10,775.0	88.80	176.8	8,131.5	S 2,919.2	W 19.9	2,919.2	2,919.2	0.417
MWD	10,870.0	92.10	177.3	8,130.7	S 3,014.0	W 15.0	3,014.1	3,014.0	3.513
MWD	10,965.0	92.30	178.4	8,127.1	S 3,108.9	W 11.5	3,108.9	3,108.9	1.176
MWD	11,060.0	90.30	179.0	8,124.9	S 3,203.8	W 9.3	3,203.8	3,203.8	2.198
MWD	11,155.0	90.30	178.9	8,124.4	S 3,298.8	W 7.6	3,298.8	3,298.8	0.105
MWD	11,250.0	91.40	178.5	8,123.0	S 3,393.8	W 5.4	3,393.8	3,393.8	1.232
MWD	11,346.0	93.10	178.6	8,119.2	S 3,489.7	W 3.0	3,489.7	3,489.7	1.774
MWD	11,441.0	92.30	180.0	8,114.8	S 3,584.6	W 1.8	3,584.6	3,584.6	1.696
MWD	11,536.0	90.40	179.8	8,112.5	S 3,679.5	W 1.7	3,679.5	3,679.5	2.011
MWD	11,631.0	89.40	180.2	8,112.7	S 3,774.5	W 1.7	3,774.5	3,774.5	1.134
MWD	11,727.0	89.10	179.4	8,114.0	S 3,870.5	W 1.3	3,870.5	3,870.5	0.890
MWD	11,822.0	90.10	179.2	8,114.6	S 3,965.5	W 0.2	3,965.5	3,965.5	1.073
MWD	11,917.0	88.60	178.8	8,115.7	S 4,060.5	E 1.5	4,060.5	4,060.5	1.634
MWD	12,012.0	85.50	178.2	8,120.6	S 4,155.3	E 4.0	4,155.3	4,155.3	3.324
MWD	12,107.0	87.10	177.4	8,126.7	S 4,250.0	E 7.6	4,250.0	4,250.0	1.882
MWD	12,202.0	90.30	177.4	8,128.9	S 4,344.9	E 11.9	4,344.9	4,344.9	3.368

MWD	12,297.0	93.40	176.0	8,125.8	S 4,439.7	E 17.4	4,439.7	4,439.7	3.580
MWD	12,392.0	94.60	177.0	8,119.2	S 4,534.3	E 23.2	4,534.3	4,534.3	1.643
MWD	12,488.0	93.80	177.5	8,112.1	S 4,629.9	E 27.8	4,630.0	4,629.9	0.982
MWD	12,583.0	94.00	179.1	8,105.7	S 4,724.6	E 30.6	4,724.7	4,724.6	1.693
MWD	12,658.0	94.40	178.6	8,100.2	S 4,799.4	E 32.1	4,799.5	4,799.4	0.852
PROJ	12,700.0	94.40	178.6	8,097.0	S 4,841.3	E 33.1	4,841.4	4,841.3	0.000

Calculations use Minimum Curvature Method.