

CHESAPEAKE OPERATING INC.
KALA #1-12 SEC.12-16S-35E,slot #1
LEA COUNTY,NEW MEXICO

SURVEY LISTING Page 2
Your ref : s#2231
Last revised : 9-Jul-99

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100ft	Vert Sect
11626.00	71.20	235.30	11437.06	134.10 S	370.61 W	9.40	386.62
11684.00	75.10	243.10	11453.90	162.46 S	418.26 W	14.52	442.07
11754.00	89.30	241.50	11463.37	194.62 S	479.49 W	20.41	511.12
11793.00	90.40	240.20	11463.48	213.62 S	513.55 W	4.37	550.09
11889.00	91.80	236.40	11461.63	264.05 S	595.20 W	4.22	646.05
11984.00	91.70	237.30	11458.73	315.97 S	674.70 W	0.95	740.94
12080.00	90.80	237.10	11456.64	367.96 S	755.37 W	0.96	836.88
12174.00	90.50	238.00	11455.57	418.39 S	834.69 W	1.01	930.84
12277.00	88.80	239.30	11456.20	471.98 S	922.65 W	2.08	1033.84
12285.00	88.80	239.30	11456.37	476.06 S	929.52 W	0.00	1041.83
12324.00	89.20	239.10	11457.05	496.03 S	963.02 W	1.15	1080.83
12356.00	88.50	238.60	11457.69	512.58 S	990.40 W	2.69	1112.82
12388.00	88.40	238.60	11458.56	529.24 S	1017.70 W	0.31	1144.81
12420.00	88.80	237.90	11459.34	546.08 S	1044.90 W	2.52	1176.80
12451.00	89.10	237.40	11459.91	562.66 S	1071.09 W	1.88	1207.78
12483.00	89.30	237.20	11460.35	579.95 S	1098.01 W	0.88	1239.77
12515.00	89.10	236.70	11460.80	597.40 S	1124.83 W	1.68	1271.75
12546.00	89.10	236.00	11461.29	614.57 S	1150.64 W	2.26	1302.71
12578.00	89.10	236.10	11461.79	632.44 S	1177.18 W	0.31	1334.67
12609.00	88.30	237.00	11462.49	649.52 S	1203.04 W	3.88	1365.63
12641.00	88.40	237.00	11463.41	666.95 S	1229.86 W	0.31	1397.60
12673.00	89.20	236.90	11464.08	684.39 S	1256.68 W	2.52	1429.57
12705.00	89.70	236.80	11464.39	701.89 S	1283.47 W	1.59	1461.55
12737.00	90.30	237.20	11464.39	719.32 S	1310.31 W	2.25	1493.53
12769.00	90.20	236.60	11464.25	736.79 S	1337.11 W	1.90	1525.51
12800.00	89.50	236.00	11464.33	753.99 S	1362.90 W	2.97	1556.48
12832.00	89.50	235.80	11464.61	771.93 S	1389.40 W	0.62	1588.44
12864.00	89.90	235.70	11464.78	789.94 S	1415.85 W	1.29	1620.39
12896.00	90.30	235.80	11464.72	807.95 S	1442.30 W	1.29	1652.34
12928.00	89.90	235.50	11464.67	826.01 S	1468.72 W	1.56	1684.29
12960.00	90.10	235.40	11464.67	844.16 S	1495.08 W	0.70	1716.23
12992.00	89.20	234.70	11464.86	862.49 S	1521.30 W	3.56	1748.15
13024.00	89.30	234.70	11465.28	880.98 S	1547.42 W	0.31	1780.07
13055.00	89.40	234.50	11465.63	898.93 S	1572.69 W	0.72	1810.98
13087.00	89.50	234.50	11465.94	917.52 S	1598.74 W	0.31	1842.88
13119.00	89.70	234.50	11466.16	936.10 S	1624.79 W	0.62	1874.78
13151.00	89.60	234.00	11466.36	954.79 S	1650.76 W	1.59	1906.68
13183.00	88.40	234.00	11466.92	973.60 S	1676.64 W	3.75	1938.55
13215.00	88.30	234.50	11467.84	992.29 S	1702.60 W	1.59	1970.44
13247.00	88.40	234.70	11468.76	1010.82 S	1728.67 W	0.70	2002.33
13278.00	88.60	234.60	11469.57	1028.75 S	1753.95 W	0.72	2033.24
13310.00	88.80	234.30	11470.30	1047.35 S	1779.98 W	1.13	2065.13
13342.00	89.20	233.90	11470.86	1066.11 S	1805.90 W	1.77	2097.01
13374.00	89.50	233.90	11471.22	1084.96 S	1831.75 W	0.94	2128.89
13406.00	89.50	233.70	11471.50	1103.86 S	1857.57 W	0.62	2160.76
13438.00	89.40	233.50	11471.81	1122.85 S	1883.33 W	0.70	2192.62
13469.00	89.50	234.00	11472.10	1141.18 S	1908.33 W	1.64	2223.49
13501.00	89.70	234.70	11472.33	1159.83 S	1934.33 W	2.27	2255.39
13533.00	90.10	235.60	11472.38	1178.11 S	1960.59 W	3.08	2287.32
13565.00	90.40	235.40	11472.24	1196.24 S	1986.96 W	1.13	2319.27

All data is in feet unless otherwise stated.
Coordinates from structure and TVD from rotary table.
Bottom hole distance is 2436.06 on azimuth 238.78 degrees from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 238.91 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ