

Marathon Oil Company
INDIAN HILLS UNIT 45, slot #1
INDIAN BASIN, Eddy County New Mexico

SURVEY LISTING Page 2

Your ref : MWD

Last revised : 7-Aug-2002

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	G R I D Easting	C O O R D S Northing
3950.00	9.10	340.30	3947.14	15.19S	19.78E	1.87	-17.44	449484.98	529449.21
3982.00	9.50	338.90	3978.72	10.34S	17.97E	1.44	-12.42	449483.17	529454.06
4013.00	9.90	337.50	4009.28	5.49S	16.03E	1.50	-7.37	449481.23	529458.91
4045.00	10.30	339.30	4040.78	0.27S	13.97E	1.59	-1.94	449479.17	529464.13
4077.00	10.90	339.60	4072.23	5.24N	11.90E	1.88	3.78	449477.10	529469.64
4108.00	11.50	341.40	4102.64	10.92N	9.89E	2.24	9.65	449475.09	529475.32
4139.00	12.10	343.10	4132.99	16.95N	7.96E	2.24	15.88	449473.16	529481.35
4171.00	12.80	344.20	4164.24	23.57N	6.02E	2.31	22.68	449471.22	529487.97
4202.00	13.40	346.30	4194.43	30.37N	4.24E	2.47	29.64	449469.44	529494.77
4233.00	13.90	347.40	4224.55	37.49N	2.57E	1.82	36.91	449467.77	529501.89
4265.00	14.20	348.40	4255.60	45.09N	0.95E	1.21	44.65	449466.15	529509.49
4296.00	14.80	350.20	4285.61	52.71N	0.49W	2.42	52.39	449464.71	529517.11
4360.00	16.20	352.60	4347.28	69.62N	3.03W	2.41	69.48	449462.17	529534.02
4392.00	15.70	352.70	4378.05	78.34N	4.16W	1.56	78.28	449461.04	529542.74
4455.00	15.30	352.30	4438.76	95.04N	6.35W	0.66	95.11	449458.85	529559.44
4487.00	14.80	352.30	4469.66	103.27N	7.47W	1.56	103.42	449457.73	529567.67
4551.00	14.80	353.00	4531.54	119.48N	9.56W	0.28	119.77	449455.64	529583.88
4614.00	15.50	352.60	4592.35	135.82N	11.62W	1.12	136.23	449453.58	529600.22
4676.00	14.90	350.90	4652.18	151.91N	13.95W	1.21	152.48	449451.25	529616.31
4738.00	14.80	350.50	4712.11	167.59N	16.52W	0.23	168.36	449448.68	529631.99
4801.00	15.80	350.90	4772.87	183.99N	19.20W	1.60	184.97	449446.00	529648.39
4864.00	16.30	350.90	4833.42	201.19N	21.96W	0.79	202.37	449443.24	529665.59
4927.00	16.30	351.20	4893.88	218.66N	24.71W	0.13	220.04	449440.49	529683.06
4990.00	16.10	351.60	4954.38	236.04N	27.34W	0.36	237.61	449437.86	529700.44
5053.00	16.30	353.30	5014.88	253.46N	29.65W	0.82	255.18	449435.55	529717.86
5117.00	17.00	353.30	5076.20	271.67N	31.79W	1.09	273.52	449433.41	529736.07
5179.00	16.90	353.30	5135.50	289.62N	33.89W	0.16	291.60	449431.31	529754.02
5239.00	16.40	353.30	5192.99	306.70N	35.90W	0.83	308.79	449429.30	529771.10
5301.00	16.30	353.30	5252.48	324.03N	37.94W	0.16	326.24	449427.26	529788.43
5364.00	15.70	352.60	5313.04	341.26N	40.07W	1.00	343.61	449425.13	529805.66
5427.00	15.50	353.30	5373.72	358.08N	42.15W	0.44	360.55	449423.05	529822.48
5490.00	15.60	353.30	5434.41	374.85N	44.12W	0.16	377.44	449421.08	529839.25
5553.00	15.60	352.30	5495.09	391.66N	46.24W	0.43	394.38	449418.96	529856.06
5616.00	15.90	350.90	5555.73	408.57N	48.74W	0.77	411.47	449416.46	529872.97
5679.00	16.30	351.20	5616.26	425.83N	51.46W	0.65	428.93	449413.74	529890.23
5742.00	16.30	353.30	5676.73	443.35N	53.84W	0.94	446.61	449411.36	529907.75
5805.00	16.30	353.00	5737.19	460.91N	55.95W	0.13	464.29	449409.25	529925.31
5869.00	16.60	353.00	5798.57	478.89N	58.16W	0.47	482.41	449407.04	529943.29
5932.00	16.50	353.30	5858.96	496.71N	60.30W	0.21	500.36	449404.90	529961.11
5996.00	15.90	353.00	5920.42	514.44N	62.43W	0.95	518.21	449402.77	529978.84
6059.00	15.50	353.30	5981.07	531.37N	64.46W	0.65	535.26	449400.74	529995.77
6123.00	16.70	353.70	6042.56	549.00N	66.47W	1.88	553.01	449398.73	530013.40
6186.00	16.70	354.00	6102.90	567.00N	68.41W	0.14	571.11	449396.79	530031.40
6250.00	16.00	354.40	6164.31	584.92N	70.23W	1.11	589.12	449394.97	530049.32
6313.00	16.40	354.10	6224.81	602.41N	71.99W	0.65	606.70	449393.21	530066.81
6377.00	15.80	354.00	6286.30	620.06N	73.83W	0.94	624.44	449391.37	530084.46
6439.00	16.00	353.70	6345.93	636.95N	75.65W	0.35	641.43	449389.55	530101.35
6503.00	15.90	353.70	6407.47	654.43N	77.58W	0.16	659.01	449387.62	530118.83
6565.00	16.20	354.00	6467.05	671.47N	79.42W	0.50	676.15	449385.78	530135.87
6629.00	16.20	353.00	6528.51	689.21N	81.44W	0.44	694.01	449383.76	530153.61

All data in feet unless otherwise stated. Calculation uses minimum curvature method.

Coordinates from slot #1 and TVD from rotary table.

Bottom hole distance is 1118.13 on azimuth 353.52 degrees from wellhead.

Vertical section is from S 0.00 E 0.00 on azimuth 353.12 degrees.

Grid is mercator - New Mexico East (3001).

Grid coordinates in FEET and computed using the Clarke - 1866 spheroid

Presented by Baker Hughes INTEQ