

Sperry-Sun Drilling Services



Survey Report for HENRY COURTMAN 4 STATE #1 - LATERAL #2

MARATHON OIL COMPANY
TRAVIS FIELD

EDDY COUNTY, NEW MEXICO
SECTION 4, T-19-S, R-28-E

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
10133.00	102.000	16.300	9758.45	448.74 N	75.76 W	365.72	
10164.00	96.900	14.800	9753.36	478.19 N	67.57 W	395.68	17.130
10196.00	95.000	13.400	9750.05	509.05 N	59.82 W	426.71	7.361
10227.00	99.800	14.700	9746.06	538.87 N	52.36 W	456.67	16.032
10259.00	100.100	15.200	9740.53	569.32 N	44.23 W	487.50	1.802
10290.00	99.200	14.800	9735.33	598.84 N	36.32 W	517.40	3.170
10322.00	98.100	14.000	9730.52	629.48 N	28.45 W	548.28	4.234
10354.00	97.100	13.300	9726.28	660.30 N	20.97 W	579.15	3.804
10385.00	101.100	14.600	9721.38	690.00 N	13.59 W	608.97	13.551
10417.00	101.200	15.400	9715.19	720.33 N	5.46 W	639.68	2.473
10449.00	101.000	14.900	9709.03	750.64 N	2.74 E	670.42	1.656
10480.00	98.200	16.400	9703.86	780.07 N	10.99 E	700.39	10.215
10512.00	94.400	19.200	9700.35	810.34 N	20.71 E	731.79	14.718
10543.00	93.700	19.500	9698.16	839.52 N	30.96 E	762.44	2.456
10575.00	89.000	20.300	9697.41	869.59 N	41.84 E	794.18	14.899
10606.00	88.300	19.800	9698.14	898.70 N	52.47 E	824.95	2.775
10638.00	88.000	17.800	9699.17	928.98 N	62.77 E	856.61	6.317
10669.00	89.100	19.300	9699.96	958.36 N	72.63 E	887.26	5.999
10701.00	89.100	21.000	9700.46	988.39 N	83.65 E	919.03	5.312
10733.00	90.200	20.800	9700.66	1018.29 N	95.07 E	950.86	3.494
10764.00	89.200	20.300	9700.82	1047.31 N	105.95 E	981.66	3.607
10796.00	88.900	21.000	9701.35	1077.25 N	117.23 E	1013.46	2.380
10828.00	90.600	21.100	9701.49	1107.12 N	128.73 E	1045.29	5.322
10860.00	92.800	21.300	9700.54	1136.94 N	140.29 E	1077.12	6.903
10891.00	92.600	22.200	9699.08	1165.70 N	151.77 E	1107.96	2.971
10923.00	92.100	23.000	9697.77	1195.21 N	164.06 E	1139.84	2.946
10955.00	93.700	23.200	9696.15	1224.61 N	176.59 E	1171.72	5.039
10987.00	94.600	23.000	9693.83	1253.97 N	189.12 E	1203.57	2.881
11018.00	94.700	22.700	9691.32	1282.44 N	201.11 E	1234.39	1.017
11050.00	94.200	23.500	9688.84	1311.78 N	213.63 E	1266.22	2.942
11081.00	93.900	22.700	9686.65	1340.23 N	225.76 E	1297.07	2.750
11145.00	93.900	22.700	9682.29	1399.13 N	250.40 E	1360.75	0.000

All data is in feet unless otherwise stated. Directions and coordinates are relative to True North.
Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100ft.

Vertical Section is from Well and calculated along an Azimuth of 26.940° (True).

Based upon Minimum Curvature type calculations, at a Measured Depth of 11145.00ft.,

The Bottom Hole Displacement is 1421.36ft., in the Direction of 10.147° (True).