

**EMS****SURVEY CALCULATION REPORT**

Customer: MARATHON OIL CO.
Probe # : 2034
Location: LEA CO. NM.
Field: LOU WORTHAN
Operator: POOL
Time: 8/14/98

Well no: LOU WORTHAN #4
Rig Name: POOL RIG 671
Comments: INCLINATION ONLY

Filename: MARATH
Section Plane: 0.00
Vertical Section Origin:
North: 0.00 FEET
East: 0.00 FEET
Declination (Mag to True): N/A
Convergence (True to Grid): N/A
Mag Convergence (Mag to Grid): N/A
Depth Unit: FEET

Azimuth Compensation Applied: None
Survey Correction Applied: None.
Survey Calculation Method: Minimum Curvature

RECORD OF SURVEY

Measured Depth (feet)	Inclin (deg)	Azimuth (deg)	R E C T A N G U L A R C O O R D I N A T E S		Vertical Depth (feet)	Vertical Section (feet)	Dogleg Severity (dg/100ft)
0.0	0.00	0.00	0.0N	0.0E	0.0	0.0	0.00
5013.0	0.31	148.14	11.4S	7.1E	5013.0	-11.4	0.01
5199.0	0.63	129.70	12.5S	8.1E	5199.0	-12.5	0.19
5695.0	0.97	135.77	17.2S	13.1E	5694.9	-17.2	0.07
6191.0	0.24	67.20	19.8S	17.0E	6190.9	-19.8	0.18

CLOSURE: Distance: 26.11
Direction: 139.29

Survey Comments

INCLINATION ONLY