

Company: Anadarko Petroleum Corp.

Well/API: Northmoor Acres 24-14B/05-123-08540

Tool Type: North Seeking Rate Gyro

Rig Name: Production/Coretech

County/State: Weld/Colorado

Latitude: 40.295, Longitude: -104.955

Directions are relative to True North

VS-Azi: 0.000 Degrees



**FIELD COPY ONLY (NOT DEFINITIVE)**

Depth Reference : RKB= GL Elevation=5,007 Feet

**DRILLOG MS GYRO SURVEY CALCULATIONS**

Filename: msgyro\_run01-01-de\_01.ut

Minimum Curvature Method

Report Date/Time: 4/15/2015 / 11:57

Lat/Long Obtained by Handheld GPS at Wellhead

Handheld GPS Reference: NAD83/ Device Error: +- 9 Feet

VES Survey International- Henderson Co

Levi Sheldon

303-853-4976

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	****
100.000	0.233	296.075	100.000	0.089	-0.182	0.089	0.203	296.075	0.233
200.000	0.126	281.501	199.999	0.201	-0.473	0.201	0.514	292.982	0.115
300.000	0.616	329.448	299.997	0.685	-0.854	0.685	1.095	308.741	0.539
400.000	0.782	331.702	399.989	1.748	-1.450	1.748	2.272	320.324	0.169
500.000	0.880	333.357	499.979	3.036	-2.118	3.036	3.702	325.094	0.101
600.000	1.094	333.476	599.964	4.576	-2.889	4.576	5.412	327.737	0.213
700.000	1.054	326.899	699.947	6.201	-3.818	6.201	7.282	328.382	0.129
800.000	1.062	323.244	799.929	7.714	-4.874	7.714	9.125	327.711	0.068
900.000	1.230	325.759	899.909	9.344	-6.033	9.344	11.122	327.151	0.176
1000.000	1.331	327.219	999.884	11.208	-7.266	11.208	13.357	327.045	0.106
1100.000	1.324	322.926	1099.858	13.106	-8.591	13.106	15.670	326.755	0.100
1200.000	1.291	332.188	1199.832	15.023	-9.813	15.023	17.944	326.849	0.214
1300.000	1.104	327.003	1299.810	16.828	-10.863	16.828	20.029	327.156	0.216
1400.000	0.913	318.980	1399.794	18.237	-11.911	18.237	21.782	326.851	0.237
1500.000	1.023	314.791	1499.780	19.467	-13.067	19.467	23.446	326.129	0.130
1600.000	1.014	311.031	1599.764	20.677	-14.368	20.677	25.178	325.205	0.067
1700.000	0.998	307.002	1699.749	21.781	-15.731	21.781	26.868	324.163	0.072
1800.000	0.988	299.486	1799.734	22.730	-17.177	22.730	28.490	322.922	0.131
1850.000	0.845	302.462	1849.728	23.140	-17.863	23.140	29.233	322.333	0.301

HORIZONTAL DISPLACEMENT IS  
29.233 FEET AT 322.333 DEGREES