

Company: ANADARKO PETROLEUM  
 Well: ANDERSON MEL GAS UNIT #2  
 API: 05-123-10910  
 Rig Name: PRODUCTION/CANARY  
 State/County: COLORADO / WELD  
 Latitude: 40.098, Longitude: -104.786  
 Directions are relative to True North  
 VS-Azi: 0.000 Degrees



**FIELD COPY ONLY (NOT DEFINITIVE)**

Depth Reference : RKB = GROUND LEVEL

**DRILLOG MS GYRO SURVEY CALCULATIONS**

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

Minimum Curvature Method

Report Date/Time: 7/22/2013 / 12:24

VAUGHN ENERGY SERVICES

HENDERSON, COLORADO

866-835-8333

NICK KULA

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	0.476	72.855	99.999	0.123	0.397	0.123	0.416	72.855	0.476
200.000	0.325	80.415	199.996	0.292	1.074	0.292	1.113	74.773	0.160
300.000	0.264	58.621	299.995	0.459	1.550	0.459	1.616	73.488	0.126
400.000	0.271	55.432	399.994	0.714	1.941	0.714	2.068	69.816	0.016
500.000	0.297	41.054	499.993	1.043	2.306	1.043	2.531	65.661	0.076
600.000	0.215	19.239	599.992	1.416	2.538	1.416	2.906	60.845	0.126
700.000	0.136	33.106	699.991	1.693	2.665	1.693	3.157	57.575	0.089
800.000	0.022	252.600	799.991	1.787	2.712	1.787	3.247	56.619	0.154
900.000	0.149	189.668	899.991	1.653	2.672	1.653	3.142	58.257	0.140
1000.000	0.368	255.614	999.990	1.445	2.338	1.445	2.749	58.291	0.336
1100.000	0.374	262.033	1099.988	1.320	1.704	1.320	2.155	52.240	0.042
1200.000	0.285	252.105	1199.986	1.198	1.144	1.198	1.656	43.672	0.106
1300.000	0.572	277.345	1299.984	1.185	0.412	1.185	1.255	19.162	0.337
1400.000	0.395	234.651	1399.980	1.050	-0.364	1.050	1.111	340.880	0.389
1500.000	0.341	231.953	1499.978	0.667	-0.879	0.667	1.104	307.196	0.056
1600.000	0.416	277.784	1599.976	0.533	-1.473	0.533	1.567	289.887	0.303
1700.000	0.378	227.394	1699.974	0.359	-2.076	0.359	2.107	279.804	0.340
1800.000	0.463	255.190	1799.972	0.032	-2.709	0.032	2.710	270.678	0.218
1900.000	0.254	266.346	1899.970	-0.085	-3.321	-0.085	3.322	268.528	0.219
2000.000	0.283	221.053	1999.969	-0.286	-3.705	-0.286	3.716	265.589	0.209
2100.000	0.462	245.514	2099.966	-0.639	-4.234	-0.639	4.282	261.415	0.236
2200.000	0.420	237.885	2199.964	-1.001	-4.911	-1.001	5.012	258.479	0.072
2300.000	0.355	222.222	2299.961	-1.425	-5.430	-1.425	5.614	255.292	0.124
2400.000	0.378	240.489	2399.959	-1.817	-5.925	-1.817	6.198	252.950	0.119
2500.000	0.194	234.009	2499.958	-2.080	-6.350	-2.080	6.682	251.866	0.186
2600.000	0.293	80.545	2599.958	-2.137	-6.235	-2.137	6.591	251.078	0.475
2700.000	0.619	74.817	2699.954	-1.954	-5.461	-1.954	5.800	250.314	0.328
2800.000	1.107	77.723	2799.943	-1.607	-3.996	-1.607	4.307	248.092	0.489
2900.000	1.324	74.269	2899.920	-1.088	-1.939	-1.088	2.224	240.705	0.230



Measured	Incl	Drift	TVD	+N/-S	+E/-W	Vertical	Closure	Closure	Dogleg
Depth	Angle	Direction				Section	Distance	Direction	Severity
FT	Deg	Deg	FT	FT	FT	FT	FT	Deg	Deg/100

HORIZONTAL DISPLACEMENT IS  
33.293 FEET AT 326.427 DEGREES