



Company: Anadarko Petroleum
 Well: Floyd Adler Gas Unit C #1
 API: 05-123-08678
 Rig Name: Production/ Canary
 State/County: Colorado/Weld
 Latitude: 40.185, Longitude: -105.004
 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: 9/26/2013 / 12:29

VAUGHN ENERGY SERVICES

HENDERSON, COLORADO

303-853-4976

SEAN BRATT

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	0.236	39.150	100.000	0.160	0.130	0.160	0.206	39.150	0.236
200.000	0.329	321.479	199.999	0.545	0.081	0.545	0.551	8.503	0.362
300.000	0.656	324.169	299.995	1.233	-0.432	1.233	1.307	340.678	0.327
400.000	0.683	333.690	399.988	2.231	-1.031	2.231	2.458	335.191	0.114
500.000	0.632	333.550	499.982	3.259	-1.541	3.259	3.605	334.692	0.050
600.000	0.551	322.311	599.976	4.133	-2.081	4.133	4.627	333.280	0.141
700.000	0.657	320.775	699.971	4.957	-2.737	4.957	5.663	331.099	0.107
800.000	0.564	316.318	799.965	5.757	-3.439	5.757	6.706	329.148	0.104
900.000	0.622	322.287	899.960	6.543	-4.111	6.543	7.727	327.857	0.085
1000.000	0.641	301.895	999.954	7.268	-4.918	7.268	8.775	325.913	0.224
1100.000	0.682	296.045	1099.947	7.825	-5.928	7.825	9.817	322.853	0.079
1200.000	0.842	303.328	1199.938	8.490	-7.077	8.490	11.052	320.187	0.187
1300.000	1.024	279.892	1299.925	9.047	-8.571	9.047	12.463	316.547	0.419
1400.000	0.878	256.717	1399.912	9.025	-10.197	9.025	13.617	311.509	0.408
1500.000	0.962	279.705	1499.899	8.990	-11.771	8.990	14.811	307.373	0.376
1600.000	1.163	271.603	1599.882	9.160	-13.613	9.160	16.408	303.937	0.250
1700.000	1.086	272.775	1699.863	9.235	-15.574	9.235	18.106	300.665	0.080
1800.000	1.217	258.729	1799.843	9.073	-17.562	9.073	19.768	297.322	0.310
1900.000	1.374	263.302	1899.817	8.726	-19.794	8.726	21.632	293.789	0.188
2000.000	1.697	282.076	1999.782	8.896	-22.433	8.896	24.132	291.631	0.593
2100.000	1.694	284.539	2099.738	9.576	-25.311	9.576	27.062	290.724	0.073
2200.000	1.754	290.468	2199.693	10.482	-28.175	10.482	30.062	290.408	0.188
2300.000	1.617	286.631	2299.650	11.421	-30.961	11.421	33.000	290.249	0.177
2400.000	1.548	283.567	2399.612	12.142	-33.626	12.142	35.751	289.854	0.109
2500.000	1.499	277.727	2499.576	12.635	-36.236	12.635	38.375	289.223	0.163
2600.000	1.472	276.302	2599.543	12.952	-38.808	12.952	40.913	288.456	0.046
2700.000	1.436	269.986	2699.510	13.093	-41.338	13.093	43.362	287.574	0.164
2800.000	1.500	262.131	2799.478	12.913	-43.888	12.913	45.748	286.395	0.211
2900.000	1.594	261.768	2899.441	12.535	-46.561	12.535	48.219	285.067	0.095
3000.000	1.792	257.698	2999.398	12.002	-49.465	12.002	50.901	283.639	0.231
3100.000	1.882	258.896	3099.346	11.353	-52.604	11.353	53.816	282.179	0.098
3200.000	1.952	263.456	3199.290	10.843	-55.908	10.843	56.949	280.976	0.167
3300.000	2.382	260.078	3299.219	10.290	-59.646	10.290	60.528	279.789	0.449
3400.000	2.493	255.535	3399.128	9.389	-63.799	9.389	64.486	278.372	0.222
3500.000	2.388	255.630	3499.038	8.329	-67.923	8.329	68.432	276.991	0.104

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
3600.000	2.576	245.753	3598.944	6.889	-71.991	6.889	72.319	275.466	0.467
3700.000	2.289	245.766	3698.854	5.146	-75.861	5.146	76.035	273.881	0.288
3800.000	1.747	249.586	3798.792	3.795	-79.110	3.795	79.201	272.746	0.558
3900.000	1.436	256.070	3898.753	2.962	-81.755	2.962	81.808	272.075	0.359
4000.000	1.480	271.154	3998.721	2.686	-84.261	2.686	84.304	271.826	0.385
4100.000	1.432	271.775	4098.689	2.751	-86.802	2.751	86.845	271.815	0.050
4200.000	1.627	268.434	4198.653	2.751	-89.470	2.751	89.512	271.761	0.214
4300.000	1.740	275.076	4298.610	2.846	-92.401	2.846	92.445	271.764	0.225
4400.000	1.742	274.400	4398.564	3.097	-95.429	3.097	95.479	271.859	0.021
4500.000	1.831	285.065	4498.515	3.629	-98.487	3.629	98.554	272.110	0.344
4600.000	1.755	281.411	4598.466	4.347	-101.531	4.347	101.624	272.452	0.137
4700.000	1.899	280.502	4698.416	4.952	-104.661	4.952	104.778	272.709	0.146
4800.000	1.825	282.840	4798.363	5.608	-107.843	5.608	107.989	272.977	0.106
4900.000	1.847	288.211	4898.312	6.466	-110.926	6.466	111.114	273.336	0.173
5000.000	1.770	288.073	4998.262	7.448	-113.925	7.448	114.169	273.741	0.077
5100.000	1.591	292.731	5098.219	8.464	-116.675	8.464	116.981	274.149	0.225
5200.000	1.710	294.097	5198.177	9.610	-119.318	9.610	119.704	274.605	0.125
5300.000	1.373	295.543	5298.141	10.736	-121.761	10.736	122.234	275.039	0.340
5400.000	1.103	292.094	5398.117	11.615	-123.735	11.615	124.278	275.363	0.280
5500.000	1.248	288.689	5498.096	12.326	-125.658	12.326	126.261	275.602	0.160
5600.000	1.284	298.111	5598.072	13.203	-127.678	13.203	128.359	275.904	0.211
5700.000	1.762	282.323	5698.037	14.059	-130.168	14.059	130.925	276.164	0.632
5800.000	1.816	296.665	5797.989	15.098	-133.086	15.098	133.939	276.472	0.450
5900.000	2.486	311.844	5897.918	17.256	-136.117	17.256	137.207	277.225	0.874
6000.000	3.275	316.456	5997.791	20.773	-139.701	20.773	141.237	278.458	0.822
6100.000	3.096	322.966	6097.637	25.000	-143.295	25.000	145.460	279.896	0.404
6200.000	2.832	327.875	6197.503	29.247	-146.235	29.247	149.131	281.310	0.366
6300.000	2.226	324.827	6297.406	32.926	-148.667	32.926	152.270	282.488	0.620
6400.000	2.134	312.672	6397.334	35.776	-151.155	35.776	155.331	283.316	0.470
6500.000	2.038	299.042	6497.268	37.901	-154.079	37.901	158.672	283.820	0.504
6600.000	1.911	306.534	6597.209	39.757	-156.973	39.757	161.929	284.213	0.287
6700.000	1.740	311.824	6697.158	41.761	-159.443	41.761	164.822	284.677	0.240
6800.000	1.510	324.387	6797.118	43.845	-161.342	43.845	167.193	285.203	0.423
6900.000	1.533	326.450	6897.083	46.030	-162.848	46.030	169.228	285.783	0.059
7000.000	1.520	334.246	6997.048	48.339	-164.163	48.339	171.132	286.407	0.208
7100.000	1.626	334.602	7097.010	50.815	-165.348	50.815	172.980	287.083	0.107
7200.000	1.982	335.472	7196.960	53.671	-166.675	53.671	175.103	287.849	0.357
7300.000	1.743	333.120	7296.907	56.601	-168.080	56.601	177.355	288.611	0.251
7400.000	2.083	335.479	7396.851	59.611	-169.522	59.611	179.697	289.374	0.348
7500.000	1.818	329.779	7496.794	62.635	-171.075	62.635	182.180	290.109	0.327
7550.000	2.038	325.204	7546.765	64.050	-171.981	64.050	183.521	290.427	0.535
HORIZONTAL DISPLACEMENT IS 183.521 FEET AT 290.427 DEGREES									