



Company: Anadarko Petroleum  
 Well: Rademacher 11-25  
 API #: 05-123-21826  
 Rig Name: Production/CoreTech  
 State/County: Colorado/Weld  
 Latitude: 40.196, Longitude: -104.953  
 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: survey\_7550-de\_01.ut  
 Minimum Curvature Method  
 Report Date/Time: 12/12/2013 / 14:29

Vaughn Energy Services  
 Henderson, Colorado  
 866-835-8333  
 Randy Holcomb

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	0.352	44.856	99.999	0.218	0.217	0.218	0.308	44.856	0.352
200.000	0.340	282.353	199.998	0.500	0.144	0.500	0.520	16.111	0.607
300.000	0.275	159.488	299.998	0.338	-0.061	0.338	0.344	349.737	0.541
400.000	0.394	210.542	399.996	-0.183	-0.152	-0.183	0.238	219.687	0.308
500.000	0.073	293.655	499.995	-0.453	-0.385	-0.453	0.595	220.331	0.392
600.000	0.434	229.316	599.994	-0.675	-0.731	-0.675	0.995	227.278	0.408
700.000	0.380	295.821	699.992	-0.778	-1.317	-0.778	1.529	239.438	0.449
800.000	0.662	247.987	799.989	-0.850	-2.151	-0.850	2.313	248.445	0.495
900.000	0.673	255.790	899.982	-1.211	-3.257	-1.211	3.474	249.607	0.092
1000.000	0.441	290.070	999.977	-1.223	-4.187	-1.223	4.362	253.720	0.396
1100.000	0.651	287.652	1099.973	-0.919	-5.090	-0.919	5.172	259.770	0.212
1200.000	0.800	290.663	1199.965	-0.500	-6.284	-0.500	6.304	265.450	0.153
1300.000	0.731	280.354	1299.956	-0.139	-7.565	-0.139	7.566	268.945	0.154
1400.000	1.194	273.123	1399.941	0.032	-9.232	0.032	9.232	270.199	0.478
1500.000	0.976	272.691	1499.923	0.129	-11.123	0.129	11.124	270.664	0.218
1600.000	0.988	258.493	1599.909	-0.003	-12.820	-0.003	12.820	269.986	0.243
1700.000	1.630	247.098	1699.882	-0.729	-14.975	-0.729	14.993	267.213	0.690
1800.000	2.167	231.042	1799.828	-2.471	-17.756	-2.471	17.927	262.077	0.750
1900.000	1.943	231.483	1899.763	-4.716	-20.553	-4.716	21.087	257.077	0.224
2000.000	2.156	229.045	1999.699	-7.004	-23.299	-7.004	24.329	253.268	0.230
2100.000	1.630	234.354	2099.645	-9.066	-25.875	-9.066	27.417	250.692	0.554
2200.000	1.530	243.614	2199.607	-10.488	-28.227	-10.488	30.112	249.617	0.274
2300.000	1.651	262.525	2299.569	-11.268	-30.851	-11.268	32.845	249.935	0.536
2400.000	1.377	277.658	2399.534	-11.296	-33.470	-11.296	35.324	251.351	0.482
2500.000	1.409	268.813	2499.505	-11.161	-35.890	-11.161	37.585	252.725	0.217
2600.000	1.648	273.917	2599.469	-11.088	-38.554	-11.088	40.117	253.955	0.275
2700.000	1.461	278.527	2699.432	-10.801	-41.250	-10.801	42.641	255.327	0.225
2800.000	1.166	292.596	2799.406	-10.221	-43.451	-10.221	44.637	256.763	0.435
2900.000	0.751	303.942	2899.392	-9.464	-44.934	-9.464	45.920	258.106	0.454
3000.000	0.805	285.617	2999.383	-8.909	-46.154	-8.909	47.006	259.075	0.253
3100.000	0.676	282.824	3099.375	-8.589	-47.406	-8.589	48.178	259.731	0.134
3200.000	0.337	277.155	3199.371	-8.421	-48.273	-8.421	49.002	260.104	0.342
3300.000	0.261	163.476	3299.370	-8.603	-48.500	-8.603	49.257	259.941	0.503
3400.000	0.422	100.722	3399.368	-8.891	-48.074	-8.891	48.889	259.522	0.381

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
3500.000	0.344	90.642	3499.366	-8.962	-47.412	-8.962	48.252	259.296	0.103
3600.000	0.976	63.176	3599.359	-8.582	-46.352	-8.582	47.140	259.511	0.689
3700.000	1.329	55.630	3699.339	-7.543	-44.635	-7.543	45.268	260.408	0.384
3800.000	1.188	52.239	3799.315	-6.253	-42.858	-6.253	43.312	261.699	0.159
3900.000	1.074	55.366	3899.295	-5.086	-41.268	-5.086	41.580	262.974	0.130
4000.000	0.608	53.776	3999.284	-4.240	-40.069	-4.240	40.293	263.960	0.467
4100.000	0.548	45.101	4099.279	-3.589	-39.303	-3.589	39.466	264.782	0.106
4200.000	0.664	71.988	4199.274	-3.072	-38.413	-3.072	38.535	265.427	0.304
4300.000	0.303	12.191	4299.271	-2.635	-37.805	-2.635	37.897	266.014	0.575
4400.000	0.313	10.743	4399.269	-2.108	-37.699	-2.108	37.758	266.800	0.013
4500.000	0.335	349.414	4499.268	-1.551	-37.701	-1.551	37.733	267.644	0.122
4600.000	0.471	344.653	4599.265	-0.868	-37.864	-0.868	37.874	268.687	0.140
4700.000	0.664	346.896	4699.260	0.093	-38.104	0.093	38.104	270.140	0.195
4800.000	0.622	340.133	4799.254	1.168	-38.420	1.168	38.438	271.742	0.087
4900.000	0.453	317.298	4899.249	1.969	-38.872	1.969	38.922	272.899	0.269
5000.000	0.587	297.835	4999.245	2.498	-39.593	2.498	39.672	273.610	0.220
5100.000	0.379	301.636	5099.242	2.911	-40.328	2.911	40.433	274.129	0.210
5200.000	0.210	282.896	5199.240	3.125	-40.788	3.125	40.907	274.382	0.193
5300.000	0.159	272.300	5299.240	3.172	-41.105	3.172	41.227	274.412	0.061
5400.000	0.140	206.157	5399.240	3.067	-41.298	3.067	41.411	274.248	0.164
5500.000	0.283	170.459	5499.239	2.714	-41.311	2.714	41.400	273.759	0.188
5600.000	0.594	144.753	5599.236	2.047	-40.970	2.047	41.021	272.860	0.361
5700.000	0.445	145.799	5699.232	1.302	-40.453	1.302	40.474	271.843	0.149
5800.000	0.466	137.019	5799.229	0.683	-39.957	0.683	39.963	270.979	0.073
5900.000	0.453	153.909	5899.226	0.031	-39.506	0.031	39.506	270.045	0.135
6000.000	0.506	149.360	5999.222	-0.704	-39.108	-0.704	39.114	268.969	0.065
6100.000	0.576	159.278	6099.218	-1.553	-38.705	-1.553	38.736	267.702	0.117
6200.000	0.684	178.740	6199.212	-2.620	-38.514	-2.620	38.603	266.108	0.238
6300.000	0.852	191.652	6299.203	-3.945	-38.651	-3.945	38.852	264.172	0.240
6400.000	1.091	189.527	6399.188	-5.613	-38.959	-5.613	39.361	261.802	0.242
6500.000	1.251	212.117	6499.168	-7.477	-39.697	-7.477	40.395	259.333	0.485
6600.000	1.162	194.536	6599.146	-9.383	-40.532	-9.383	41.604	256.966	0.379
6700.000	1.018	196.823	6699.128	-11.215	-41.044	-11.215	42.548	254.717	0.150
6800.000	0.940	196.165	6799.113	-12.853	-41.529	-12.853	43.473	252.803	0.080
6900.000	1.121	198.214	6899.097	-14.570	-42.063	-14.570	44.515	250.894	0.185
7000.000	1.168	189.350	6999.077	-16.505	-42.535	-16.505	45.625	248.792	0.183
7100.000	0.461	149.475	7099.067	-17.857	-42.496	-17.857	46.095	247.207	0.866
7200.000	0.481	147.330	7199.064	-18.557	-42.065	-18.557	45.976	246.195	0.027
7300.000	0.435	147.014	7299.061	-19.229	-41.631	-19.229	45.858	245.208	0.046
7400.000	0.356	167.073	7399.058	-19.850	-41.355	-19.850	45.873	244.359	0.158
7500.000	0.637	206.283	7499.055	-20.652	-41.532	-20.652	46.383	243.561	0.426
7550.000	0.574	240.168	7549.052	-21.026	-41.872	-21.026	46.855	243.337	0.717

HORIZONTAL DISPLACEMENT IS 46.855 FEET AT 243.337 DEGREES									
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