



Company: Anadarko Petroleum Corp.
Well/API: Koenig 1-19/05-123-10054
Tool Type: North Seeking Rate Gyro
Rig Name: Cartel 88
County/State: Weld/Colorado
VS-Azi: 0.000 Degrees
Latitude: 40.37980, Longitude: -104.94273
All Azimuths referenced to True North
No Grid Convergence Applied



Depth Reference : RKB = 12 Feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: gyrosurvey.ut

Minimum Curvature Method

Report Date/Time: 7/5/2018 / 15:19

Lat/Long Obtained By Handheld GPS At Wellhead

Handheld GPS Reference: NAD83/Device Error: ± 9 Feet

VES Survey International - Henderson CO

Surveyor: Justin Williams / Koenig 1-19 / API 05-123-10054

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	****
49.400	0.845	247.715	49.398	-0.138	-0.337	-0.138	0.364	247.715	1.711
144.230	0.487	247.976	144.222	-0.554	-1.358	-0.554	1.466	247.786	0.378
239.060	0.507	253.003	239.048	-0.828	-2.132	-0.828	2.287	248.776	0.051
333.890	0.654	261.549	333.873	-1.030	-3.069	-1.030	3.237	251.443	0.180
428.720	0.899	273.634	428.694	-1.063	-4.347	-1.063	4.475	256.262	0.309
523.550	0.876	292.265	523.513	-0.741	-5.760	-0.741	5.808	262.672	0.304
618.380	0.691	255.956	618.335	-0.605	-6.986	-0.605	7.012	265.053	0.547
713.210	1.061	269.061	713.154	-0.758	-8.419	-0.758	8.453	264.856	0.442
808.040	1.924	268.432	807.951	-0.816	-10.888	-0.816	10.918	265.715	0.910
902.870	1.617	267.803	902.735	-0.911	-13.815	-0.911	13.845	266.229	0.324
997.700	1.386	262.167	997.533	-1.118	-16.288	-1.118	16.327	266.073	0.289
1092.530	1.716	256.309	1092.328	-1.610	-18.803	-1.610	18.872	265.105	0.385
1187.360	1.524	259.621	1187.120	-2.174	-21.423	-2.174	21.533	264.207	0.225
1282.190	1.717	261.528	1281.912	-2.610	-24.069	-2.610	24.210	263.811	0.212
1377.020	1.375	258.169	1376.708	-3.053	-26.587	-3.053	26.762	263.450	0.374
1471.850	1.584	256.772	1471.506	-3.586	-28.976	-3.586	29.197	262.946	0.224
1566.680	1.204	234.710	1566.308	-4.461	-31.064	-4.461	31.383	261.828	0.686
1661.510	1.030	229.154	1661.120	-5.593	-32.522	-5.593	32.999	260.241	0.216

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
1756.340	0.771	232.929	1755.939	-6.535	-33.675	-6.535	34.303	259.018	0.280
1851.170	1.129	254.159	1850.756	-7.175	-35.083	-7.175	35.809	258.442	0.524
1946.000	1.064	257.074	1945.568	-7.627	-36.840	-7.627	37.621	258.304	0.091