



Company: Anadarko Petroleum Corp.

Rig: Production / Cable Inc.

Latitude: 40.17

Longitude: -104.634

API # 05-123-10443

Date: 11/7/2011

Well: Harkis #3

Location: Weld County, CO.

North Reference: True North

Depth Reference: Ground Level

Surveyor: Norman Cowan

VS: 0

Depth	Inc	AzG	N/-S	E/-W	TVD	DL	VS	CD	Cbrg
0.000	0.000	0.000	0.000	0.000	0.000	****	0.000	0.000	0.000
100.000	0.463	184.149	-0.403	-0.029	99.999	0.463	-0.403	0.404	184.149
200.000	0.261	198.706	-1.021	-0.132	199.997	0.220	-1.021	1.030	187.338
300.000	0.300	225.443	-1.421	-0.391	299.996	0.135	-1.421	1.474	195.396
400.000	0.351	212.540	-1.863	-0.743	399.994	0.089	-1.863	2.006	201.737
500.000	0.252	258.331	-2.166	-1.123	499.993	0.252	-2.166	2.440	207.399
600.000	0.316	180.576	-2.486	-1.340	599.992	0.360	-2.486	2.824	208.332
700.000	0.555	166.437	-3.232	-1.230	699.989	0.260	-3.232	3.458	200.827
800.000	0.267	204.797	-3.914	-1.214	799.987	0.383	-3.914	4.098	197.226
900.000	0.250	197.580	-4.334	-1.377	899.985	0.036	-4.334	4.547	197.630
1000.000	0.053	218.529	-4.578	-1.472	999.985	0.202	-4.578	4.809	197.822
1100.000	0.083	31.991	-4.552	-1.462	1099.985	0.135	-4.552	4.781	197.804
1200.000	0.018	132.209	-4.501	-1.412	1199.985	0.088	-4.501	4.718	197.418
1300.000	0.179	111.695	-4.569	-1.255	1299.985	0.163	-4.569	4.739	195.361
1400.000	0.240	54.028	-4.504	-0.940	1399.984	0.209	-4.504	4.601	191.793
1500.000	0.142	25.344	-4.269	-0.718	1499.984	0.134	-4.269	4.329	189.545
1600.000	0.110	340.985	-4.067	-0.696	1599.984	0.100	-4.067	4.126	189.710
1700.000	0.163	314.662	-3.876	-0.828	1699.983	0.081	-3.876	3.964	192.060
1800.000	0.059	53.421	-3.746	-0.888	1799.983	0.182	-3.746	3.850	193.337
1900.000	0.106	343.573	-3.626	-0.873	1899.983	0.102	-3.626	3.730	193.533
2000.000	0.346	127.118	-3.720	-0.658	1999.982	0.436	-3.720	3.778	190.030
2100.000	1.604	181.623	-5.302	-0.457	2099.967	1.431	-5.302	5.322	184.921
2200.000	1.773	169.636	-8.223	-0.218	2199.924	0.390	-8.223	8.226	181.518
2300.000	1.639	182.684	-11.173	-0.007	2299.880	0.410	-11.173	11.173	180.034
2400.000	1.420	179.908	-13.840	-0.072	2399.844	0.231	-13.840	13.840	180.296
2500.000	1.199	175.403	-16.121	0.014	2499.818	0.244	-16.121	16.121	179.949
2600.000	1.110	165.403	-18.101	0.342	2599.798	0.220	-18.101	18.104	178.917
2700.000	0.992	170.938	-19.893	0.723	2699.781	0.156	-19.893	19.906	177.920
2800.000	1.013	174.691	-21.628	0.941	2799.766	0.069	-21.628	21.648	177.509
2900.000	1.034	169.838	-23.396	1.182	2899.750	0.089	-23.396	23.426	177.108
3000.000	0.946	168.624	-25.094	1.504	2999.735	0.091	-25.094	25.139	176.570
3100.000	0.984	167.816	-26.743	1.848	3099.721	0.040	-26.743	26.806	176.047
3200.000	0.943	177.741	-28.404	2.061	3199.707	0.172	-28.404	28.478	175.849
3300.000	0.958	201.585	-30.003	1.786	3299.693	0.393	-30.003	30.056	176.593
3400.000	1.081	217.549	-31.528	0.904	3399.678	0.308	-31.528	31.541	178.357
3500.000	1.041	258.092	-32.463	-0.560	3499.662	0.736	-32.463	32.468	180.988
3600.000	1.600	311.653	-31.723	-2.492	3599.639	1.290	-31.723	31.820	184.492
3700.000	2.085	323.558	-29.331	-4.616	3699.587	0.615	-29.331	29.692	188.943
3800.000	2.148	339.732	-26.110	-6.345	3799.520	0.599	-26.110	26.870	193.659

3900.000	2.145	333.780	-22.674	-7.821	3899.450	0.223	-22.674	23.985	199.031
4000.000	2.052	342.072	-19.292	-9.199	3999.383	0.317	-19.292	21.373	205.494
4100.000	1.959	351.375	-15.899	-10.006	4099.322	0.338	-15.899	18.786	212.186
4200.000	1.816	358.036	-12.626	-10.317	4199.268	0.262	-12.626	16.305	219.253
4300.000	1.918	356.807	-9.372	-10.465	4299.215	0.110	-9.372	14.048	228.153
4400.000	1.870	359.151	-6.070	-10.582	4399.160	0.091	-6.070	12.199	240.160
4500.000	1.819	359.904	-2.852	-10.609	4499.108	0.056	-2.852	10.985	254.954
4600.000	1.874	0.124	0.371	-10.608	4599.056	0.055	0.371	10.614	272.002
4700.000	1.547	359.261	3.356	-10.622	4699.011	0.328	3.356	11.139	287.534
4800.000	1.432	6.361	5.948	-10.501	4798.978	0.217	5.948	12.068	299.529
4900.000	1.106	3.721	8.153	-10.300	4898.953	0.331	8.153	13.136	308.366
5000.000	0.945	1.706	9.941	-10.212	4998.937	0.165	9.941	14.252	314.230
5100.000	1.050	351.499	11.672	-10.323	5098.922	0.206	11.672	15.582	318.509
5200.000	1.000	10.124	13.437	-10.305	5198.906	0.335	13.437	16.933	322.514
5300.000	0.878	0.550	15.062	-10.144	5298.893	0.198	15.062	18.160	326.039
5400.000	0.793	350.603	16.511	-10.250	5398.882	0.168	16.511	19.434	328.168
5500.000	0.790	345.481	17.861	-10.536	5498.873	0.071	17.861	20.737	329.464
5600.000	0.544	349.969	18.995	-10.791	5598.866	0.251	18.995	21.846	330.399
5700.000	0.581	358.402	19.969	-10.888	5698.861	0.091	19.969	22.745	331.399
5800.000	0.731	39.441	20.969	-10.497	5798.855	0.481	20.969	23.450	333.408
5900.000	0.786	33.498	22.034	-9.713	5898.846	0.096	22.034	24.080	336.212
6000.000	0.827	80.843	22.721	-8.622	5998.837	0.649	22.721	24.302	339.221
6100.000	0.904	84.457	22.912	-7.124	6098.826	0.094	22.912	23.994	342.728
6200.000	0.366	119.395	22.832	-6.060	6198.820	0.639	22.832	23.622	345.135
6300.000	0.312	175.470	22.403	-5.760	6298.818	0.322	22.403	23.132	345.580
6400.000	0.341	180.477	21.834	-5.741	6398.817	0.041	21.834	22.576	345.267
6500.000	0.239	186.964	21.329	-5.769	6498.815	0.107	21.329	22.095	344.865
6600.000	0.138	330.053	21.226	-5.855	6598.815	0.360	21.226	22.019	344.580
6700.000	0.292	180.717	21.076	-5.918	6698.815	0.417	21.076	21.892	344.315
6800.000	0.052	149.114	20.783	-5.898	6798.814	0.249	20.783	21.604	344.156
6900.000	0.189	152.785	20.597	-5.799	6898.814	0.137	20.597	21.398	344.275