



**Company:** Noble Energy

**Rig:** Production/CoreTech

**API #** 05-123-23595

**Date:** 1/7/2014

**Surveyor:** Randy Holcomb

**VS:** 0.000

**Lat :** 40.481

**Long:** -104.473

**Well:** Peppler 18-44

**Location:** Weld County, Colorado

**North Reference:** GRID

**Convergence:** Grid north is 0.66 East of True North

**Declination:** 8.37

**Depth Reference:** Ground Level

**Elevation:** 4650 Feet

**Total Depth as Drilled:** 6956 Feet

**Lat & Long obtained by handheld GPS at wellhead  
MS Gyro Survey Calculations**

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	0.662	55.213	0.329	0.474	99.998	0.662	0.329	0.577	55.213
200.000	0.687	82.131	0.741	1.542	199.991	0.315	0.741	1.711	64.336
300.000	0.450	98.746	0.763	2.524	299.986	0.286	0.763	2.636	73.172
400.000	0.227	126.539	0.585	3.071	399.984	0.270	0.585	3.126	79.207
500.000	0.433	150.570	0.138	3.416	499.983	0.244	0.138	3.419	87.684
600.000	0.496	185.542	-0.622	3.560	599.980	0.285	-0.622	3.614	99.904
700.000	0.314	157.574	-1.306	3.623	699.977	0.263	-1.306	3.851	109.819
800.000	0.389	148.919	-1.850	3.903	799.975	0.091	-1.850	4.319	115.361
900.000	0.399	157.109	-2.462	4.213	899.973	0.057	-2.462	4.880	120.294
1000.000	0.529	180.607	-3.244	4.344	999.970	0.228	-3.244	5.422	126.753
1100.000	0.446	177.832	-4.095	4.354	1099.966	0.086	-4.095	5.977	133.248
1200.000	0.272	260.618	-4.523	4.135	1199.965	0.493	-4.523	6.128	137.570
1300.000	0.281	266.588	-4.577	3.657	1299.964	0.030	-4.577	5.858	141.375
1400.000	0.438	90.068	-4.592	3.794	1399.963	0.718	-4.592	5.956	140.432
1500.000	0.400	320.639	-4.322	3.955	1499.962	0.758	-4.322	5.858	137.542
1600.000	0.604	352.069	-3.530	3.660	1599.958	0.336	-3.530	5.085	133.960
1700.000	0.805	358.913	-2.305	3.574	1699.950	0.218	-2.305	4.253	122.815
1800.000	0.878	22.614	-0.895	3.856	1799.940	0.353	-0.895	3.958	103.069
1900.000	0.465	350.407	0.213	4.082	1899.933	0.544	0.213	4.088	87.019
2000.000	0.559	352.949	1.097	3.955	1999.929	0.097	1.097	4.104	74.491
2100.000	0.886	46.739	2.111	4.458	2099.922	0.715	2.111	4.932	64.655
2200.000	0.683	28.466	3.165	5.305	2199.913	0.319	3.165	6.177	59.177
2300.000	0.612	32.166	4.141	5.873	2299.906	0.082	4.141	7.186	54.812
2400.000	0.545	51.257	4.891	6.529	2399.901	0.203	4.891	8.157	53.160
2500.000	0.683	84.819	5.243	7.493	2499.896	0.378	5.243	9.145	55.021
2600.000	0.484	87.657	5.314	8.509	2599.891	0.201	5.314	10.032	58.016
2700.000	0.480	106.120	5.215	9.334	2699.887	0.155	5.215	10.692	60.807
2800.000	0.521	113.681	4.916	10.152	2799.883	0.078	4.916	11.280	64.161
2900.000	0.517	113.081	4.557	10.983	2899.879	0.007	4.557	11.891	67.466
3000.000	0.674	127.854	4.019	11.862	2999.874	0.218	4.019	12.525	71.283
3100.000	0.825	138.342	3.120	12.805	3099.865	0.204	3.120	13.180	76.306
3200.000	0.963	154.044	1.826	13.652	3199.853	0.280	1.826	13.774	82.380
3300.000	1.340	143.121	0.136	14.721	3299.833	0.435	0.136	14.722	89.472
3400.000	1.750	131.604	-1.813	16.565	3399.797	0.513	-1.813	16.664	96.247
3500.000	1.797	122.155	-3.662	19.034	3499.749	0.296	-3.662	19.383	100.889
3600.000	1.857	136.224	-5.666	21.482	3599.699	0.451	-5.666	22.217	104.776
3700.000	1.889	138.482	-8.070	23.696	3699.645	0.080	-8.070	25.033	108.808

3800.000	1.921	126.058	-10.291	26.144	3799.590	0.414	-10.291	28.096	111.486
3900.000	1.804	121.383	-12.097	28.842	3899.538	0.192	-12.097	31.277	112.755
4000.000	1.684	123.471	-13.727	31.412	3999.491	0.135	-13.727	34.280	113.606
4100.000	1.365	109.696	-14.939	33.759	4099.456	0.484	-14.939	36.917	113.871
4200.000	1.535	93.029	-15.411	36.218	4199.424	0.453	-15.411	39.360	113.051
4300.000	1.725	78.042	-15.170	39.028	4299.384	0.465	-15.170	41.873	111.241
4400.000	2.000	70.354	-14.272	42.144	4399.332	0.371	-14.272	44.495	108.709
4500.000	2.089	61.716	-12.822	45.392	4499.268	0.321	-12.822	47.168	105.773
4600.000	1.903	55.949	-11.028	48.373	4599.208	0.274	-11.028	49.614	102.843
4700.000	1.578	44.597	-9.118	50.715	4699.162	0.473	-9.118	51.528	100.192
4800.000	1.371	43.115	-7.265	52.499	4799.128	0.210	-7.265	52.999	97.879
4900.000	1.052	39.399	-5.682	53.900	4899.106	0.328	-5.682	54.198	96.018
5000.000	1.022	38.423	-4.273	55.037	4999.090	0.035	-4.273	55.203	94.440
5100.000	0.977	33.291	-2.862	56.059	5099.074	0.100	-2.862	56.132	92.922
5200.000	0.632	20.751	-1.634	56.723	5199.064	0.385	-1.634	56.746	91.650
5300.000	0.548	13.883	-0.654	57.033	5299.059	0.110	-0.654	57.037	90.657
5400.000	0.439	313.017	0.071	56.867	5399.056	0.508	0.071	56.867	89.928
5500.000	0.576	323.551	0.737	56.289	5499.052	0.165	0.737	56.293	89.250
5600.000	0.880	358.578	1.909	55.971	5599.044	0.526	1.909	56.003	88.046
5700.000	1.098	352.191	3.626	55.822	5699.029	0.244	3.626	55.939	86.283
5800.000	1.228	326.901	5.473	55.107	5799.009	0.525	5.473	55.378	84.328
5900.000	1.116	277.174	6.492	53.556	5898.991	0.990	6.492	53.948	83.088
6000.000	0.640	216.370	6.164	52.259	5998.981	0.978	6.164	52.621	83.273
6100.000	1.231	170.143	4.656	52.112	6098.968	0.913	4.656	52.319	84.894
6200.000	1.328	163.476	2.487	52.625	6198.943	0.178	2.487	52.684	87.294
6300.000	0.909	157.301	0.644	53.261	6298.924	0.435	0.644	53.265	89.307
6400.000	0.041	294.070	-0.073	53.534	6398.920	0.940	-0.073	53.534	90.079
6500.000	0.663	323.503	0.407	53.157	6498.918	0.628	0.407	53.159	89.562
6600.000	0.951	281.950	1.044	52.001	6598.909	0.633	1.044	52.011	88.850
6700.000	1.670	297.158	1.881	49.892	6698.882	0.792	1.881	49.927	87.841