



Company: Noble Energy

Rig: Production/CoreTech

API # 05-123-26147

Date: 2/3/2014

Surveyor: Randy Holcomb

VS: 0.000

Lat : 40.437

Long: -104.407

Well: Wells Ranch USX AA 35-14

Location: Weld County, Colorado

North Reference: GRID

Convergence: Grid north is -0.71 East of True North

Declination: 8.32

Depth Reference: Ground Level

Elevation: 4755 Feet

Total Depth as Drilled: 6907 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	0.479	62.775	0.191	0.372	99.999	0.479	0.191	0.418	62.775
200.000	0.227	125.890	0.266	0.904	199.997	0.427	0.266	0.942	73.601
300.000	0.228	23.954	0.332	1.146	299.997	0.354	0.332	1.193	73.860
400.000	0.541	329.470	0.920	0.986	399.995	0.449	0.920	1.349	46.983
500.000	0.759	310.478	1.757	0.243	499.988	0.303	1.757	1.774	7.866
600.000	0.924	239.204	1.774	-0.953	599.980	0.989	1.774	2.014	331.746
700.000	0.969	205.285	0.596	-2.007	699.967	0.554	0.596	2.094	286.551
800.000	1.068	192.905	-1.076	-2.576	799.951	0.241	-1.076	2.792	247.324
900.000	1.036	192.593	-2.867	-2.982	899.934	0.033	-2.867	4.136	226.125
1000.000	1.078	196.123	-4.652	-3.440	999.917	0.077	-4.652	5.786	216.479
1100.000	1.239	182.208	-6.636	-3.743	1099.897	0.323	-6.636	7.618	209.423
1200.000	1.407	185.899	-8.937	-3.910	1199.870	0.188	-8.937	9.755	203.632
1300.000	1.357	177.306	-11.341	-3.981	1299.841	0.213	-11.341	12.019	199.342
1400.000	0.897	190.585	-13.293	-4.069	1399.822	0.526	-13.293	13.902	197.019
1500.000	1.260	164.456	-15.122	-3.918	1499.805	0.602	-15.122	15.621	194.527
1600.000	0.964	174.797	-17.018	-3.548	1599.786	0.356	-17.018	17.384	191.775
1700.000	1.073	158.163	-18.725	-3.123	1699.770	0.314	-18.725	18.983	189.469
1800.000	1.471	152.298	-20.730	-2.178	1799.746	0.418	-20.730	20.844	185.998
1900.000	1.459	139.608	-22.836	-0.756	1899.713	0.324	-22.836	22.849	181.897
2000.000	1.490	167.707	-25.076	0.346	1999.681	0.716	-25.076	25.078	179.211
2100.000	2.428	177.284	-28.462	0.723	2099.622	0.990	-28.462	28.471	178.545
2200.000	2.085	187.023	-32.383	0.601	2199.545	0.513	-32.383	32.388	178.937
2300.000	1.113	191.390	-35.140	0.186	2299.505	0.979	-35.140	35.141	179.696
2400.000	0.657	201.090	-36.627	-0.212	2399.492	0.478	-36.627	36.628	180.331
2500.000	0.464	214.903	-37.494	-0.650	2499.488	0.234	-37.494	37.500	180.993
2600.000	0.201	66.821	-37.757	-0.720	2599.487	0.644	-37.757	37.764	181.092
2700.000	0.247	332.185	-37.497	-0.659	2699.486	0.331	-37.497	37.503	181.006
2800.000	0.524	326.971	-36.924	-1.008	2799.484	0.279	-36.924	36.937	181.564
2900.000	0.476	337.767	-36.156	-1.415	2899.480	0.105	-36.156	36.183	182.241
3000.000	0.281	307.434	-35.621	-1.767	2999.478	0.273	-35.621	35.665	182.840
3100.000	0.176	286.870	-35.428	-2.109	3099.477	0.132	-35.428	35.490	183.407
3200.000	0.255	72.875	-35.318	-2.044	3199.477	0.413	-35.318	35.377	183.312
3300.000	0.803	207.163	-35.876	-2.152	3299.474	0.998	-35.876	35.940	183.432
3400.000	1.722	223.354	-37.592	-3.503	3399.449	0.977	-37.592	37.755	185.324
3500.000	1.907	215.529	-40.039	-5.502	3499.399	0.309	-40.039	40.415	187.824
3600.000	1.989	213.249	-42.845	-7.421	3599.341	0.112	-42.845	43.482	189.826
3700.000	2.062	212.253	-45.817	-9.332	3699.279	0.081	-45.817	46.758	191.512

3800.000	1.983	208.396	-48.861	-11.115	3799.216	0.157	-48.861	50.109	192.816
3900.000	1.676	182.607	-51.844	-12.004	3899.167	0.870	-51.844	53.216	193.037
4000.000	1.594	194.363	-54.653	-12.416	3999.126	0.345	-54.653	56.046	192.799
4100.000	1.358	163.836	-57.138	-12.431	4099.095	0.810	-57.138	58.475	192.274
4200.000	0.967	139.773	-58.921	-11.556	4199.075	0.617	-58.921	60.043	191.097
4300.000	0.936	128.964	-60.079	-10.376	4299.061	0.182	-60.079	60.968	189.799
4400.000	1.066	127.176	-61.155	-9.000	4399.046	0.134	-61.155	61.814	188.372
4500.000	1.404	112.588	-62.188	-7.127	4499.022	0.458	-62.188	62.595	186.538
4600.000	1.595	127.829	-63.512	-4.897	4598.989	0.441	-63.512	63.700	184.409
4700.000	1.275	93.698	-64.437	-2.687	4698.959	0.896	-64.437	64.493	182.388
4800.000	1.052	65.424	-64.127	-0.742	4798.939	0.608	-64.127	64.132	180.663
4900.000	0.587	42.896	-63.370	0.441	4898.929	0.557	-63.370	63.372	179.601
5000.000	0.834	19.077	-62.307	1.028	4998.921	0.380	-62.307	62.315	179.055
5100.000	0.952	357.032	-60.789	1.223	5098.909	0.361	-60.789	60.801	178.848
5200.000	1.125	350.372	-58.991	1.016	5198.893	0.211	-58.991	59.000	179.014
5300.000	1.030	307.366	-57.477	0.137	5298.877	0.795	-57.477	57.478	179.864
5400.000	1.090	322.032	-56.182	-1.163	5398.860	0.277	-56.182	56.194	181.186
5500.000	0.979	339.585	-54.632	-2.046	5498.844	0.334	-54.632	54.670	182.145
5600.000	0.833	343.155	-53.135	-2.555	5598.831	0.156	-53.135	53.197	182.752
5700.000	1.252	22.162	-51.428	-2.353	5698.816	0.800	-51.428	51.482	182.620
5800.000	1.512	351.643	-49.111	-2.133	5798.788	0.769	-49.111	49.157	182.487
5900.000	1.813	352.369	-46.237	-2.535	5898.746	0.302	-46.237	46.307	183.138
6000.000	2.337	0.053	-42.631	-2.743	5998.680	0.592	-42.631	42.719	183.681
6100.000	2.492	359.898	-38.418	-2.745	6098.591	0.155	-38.418	38.516	184.086
6200.000	3.040	358.060	-33.594	-2.838	6198.474	0.555	-33.594	33.713	184.829
6300.000	2.461	347.736	-28.846	-3.384	6298.359	0.760	-28.846	29.043	186.691
6400.000	1.576	342.560	-25.436	-4.252	6398.296	0.903	-25.436	25.789	189.490
6500.000	1.046	352.196	-23.220	-4.788	6498.270	0.572	-23.220	23.709	191.651
6600.000	1.060	352.976	-21.398	-5.025	6598.253	0.020	-21.398	21.980	193.216
6650.000	0.284	337.043	-20.825	-5.130	6648.249	1.581	-20.825	21.447	193.839