



Company: Noble Energy

Rig: Production/Coretech Wireline

API # 05-123-25880

Date: 7/23/13

Surveyor: Levi Sheldon

VS:

Lat : 40.44836

Long: -104.411

Well: Wells Ranch USX AA35-04

Location: Weld County, Colorado

North Reference: GRID

Convergence: Grid north is -0.7 of True North

Declination: 8.39

Depth Reference: Ground Level

Elevation: 4,822 Feet

Total Depth as Drilled: 6,963 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	0.450	128.284	-0.243	0.308	99.999	0.450	-0.243	0.393	128.284
200.000	0.798	123.723	-0.873	1.195	199.993	0.351	-0.873	1.480	126.141
300.000	0.760	153.271	-1.852	2.073	299.984	0.399	-1.852	2.780	131.778
400.000	0.527	252.506	-2.582	1.932	399.980	0.992	-2.582	3.225	143.196
500.000	0.567	185.472	-3.213	1.446	499.976	0.605	-3.213	3.524	155.769
600.000	1.137	244.321	-4.136	0.505	599.967	0.973	-4.136	4.167	173.038
700.000	1.373	230.178	-5.333	-1.309	699.943	0.388	-5.333	5.491	193.791
800.000	0.790	221.695	-6.615	-2.687	799.925	0.603	-6.615	7.140	202.112
900.000	0.459	118.759	-7.322	-2.794	899.921	0.998	-7.322	7.837	200.889
1000.000	0.480	286.611	-7.395	-2.844	999.920	0.934	-7.395	7.923	201.037
1100.000	0.463	173.732	-7.677	-3.201	1099.918	0.786	-7.677	8.318	202.635
1200.000	0.450	55.594	-7.857	-2.833	1199.916	0.783	-7.857	8.353	199.828
1300.000	0.421	235.045	-7.846	-2.810	1299.915	0.871	-7.846	8.334	199.706
1400.000	0.332	330.456	-7.804	-3.254	1399.914	0.560	-7.804	8.455	202.634
1500.000	0.557	220.347	-7.923	-3.712	1499.912	0.740	-7.923	8.749	205.103
1600.000	0.487	254.403	-8.408	-4.436	1599.908	0.313	-8.408	9.506	207.816
1700.000	0.354	86.843	-8.505	-4.537	1699.907	0.836	-8.505	9.639	208.077
1800.000	0.466	113.678	-8.651	-3.856	1799.905	0.219	-8.651	9.472	204.023
1900.000	0.437	73.919	-8.709	-3.117	1899.902	0.308	-8.709	9.250	199.693
2000.000	0.429	85.430	-8.574	-2.377	1999.899	0.087	-8.574	8.897	195.497
2100.000	0.473	146.340	-8.887	-1.775	2099.896	0.459	-8.887	9.063	191.296
2200.000	0.442	266.336	-9.255	-1.931	2199.895	0.792	-9.255	9.454	191.788
2300.000	0.527	128.193	-9.564	-1.955	2299.893	0.905	-9.564	9.762	191.554
2400.000	0.476	163.740	-10.247	-1.478	2399.890	0.310	-10.247	10.353	188.205
2500.000	0.465	76.349	-10.550	-0.967	2499.887	0.650	-10.550	10.594	185.238
2600.000	0.415	56.033	-10.252	-0.273	2599.884	0.163	-10.252	10.255	181.524
2700.000	0.466	285.431	-9.941	-0.364	2699.883	0.801	-9.941	9.948	182.097
2800.000	0.472	214.280	-10.173	-0.988	2799.880	0.546	-10.173	10.221	185.547
2900.000	0.425	345.079	-10.156	-1.315	2899.879	0.816	-10.156	10.241	187.380
3000.000	0.438	45.136	-9.528	-1.140	2999.877	0.432	-9.528	9.596	186.824
3100.000	0.473	81.318	-9.197	-0.462	3099.874	0.285	-9.197	9.208	182.874
3200.000	0.438	112.738	-9.282	0.298	3199.871	0.249	-9.282	9.287	178.158
3300.000	0.482	322.446	-9.097	0.395	3299.870	0.889	-9.097	9.105	177.515
3400.000	0.436	52.703	-8.533	0.441	3399.867	0.651	-8.533	8.544	177.039
3500.000	0.436	129.599	-8.545	1.037	3499.865	0.542	-8.545	8.608	173.077

3600.000	0.448	249.445	-8.925	0.965	3599.864	0.765	-8.925	8.977	173.829
3700.000	0.400	312.313	-8.827	0.341	3699.862	0.444	-8.827	8.834	177.786
3800.000	0.456	233.478	-8.830	-0.237	3799.859	0.545	-8.830	8.833	181.534
3900.000	0.461	1.718	-8.664	-0.544	3899.858	0.825	-8.664	8.681	183.595
4000.000	0.428	27.724	-7.932	-0.359	3999.855	0.203	-7.932	7.940	182.590
4100.000	0.442	185.208	-7.986	-0.220	4099.854	0.853	-7.986	7.989	181.580
4200.000	0.435	247.750	-8.514	-0.607	4199.852	0.455	-8.514	8.535	184.076
4300.000	0.487	18.080	-8.254	-0.826	4299.850	0.837	-8.254	8.295	185.716
4400.000	0.463	235.861	-8.077	-1.029	4399.849	0.899	-8.077	8.142	187.260
4500.000	0.483	304.031	-8.068	-1.712	4499.846	0.530	-8.068	8.248	191.983
4600.000	0.485	123.796	-8.068	-1.709	4599.845	0.968	-8.068	8.247	191.963
4700.000	0.316	25.703	-8.055	-1.238	4699.843	0.615	-8.055	8.150	188.737
4800.000	0.461	106.882	-7.923	-0.733	4799.842	0.517	-7.923	7.957	185.288
4900.000	0.515	49.413	-7.748	-0.007	4899.839	0.472	-7.748	7.748	180.053
5000.000	0.464	9.457	-7.056	0.401	4999.835	0.338	-7.056	7.067	176.749
5100.000	0.488	111.764	-6.814	0.863	5099.833	0.741	-6.814	6.869	172.785
5200.000	0.422	177.165	-7.340	1.276	5199.831	0.495	-7.340	7.450	170.136
5300.000	0.281	249.708	-7.793	1.064	5299.829	0.431	-7.793	7.865	172.225
5400.000	0.402	264.610	-7.911	0.484	5399.827	0.149	-7.911	7.926	176.496
5500.000	0.346	259.392	-8.000	-0.162	5499.825	0.066	-8.000	8.001	181.160
5600.000	0.535	50.723	-7.760	-0.097	5599.824	0.855	-7.760	7.760	180.718
5700.000	0.414	303.790	-7.263	-0.036	5699.822	0.766	-7.263	7.263	180.285
5800.000	0.391	57.733	-6.880	-0.048	5799.821	0.675	-6.880	6.880	180.399
5900.000	0.398	314.938	-6.452	-0.005	5899.819	0.616	-6.452	6.452	180.042
6000.000	0.404	148.031	-6.506	-0.064	5999.818	0.796	-6.506	6.506	180.562
6100.000	0.464	130.937	-7.070	0.429	6099.816	0.142	-7.070	7.083	176.531
6200.000	0.446	122.066	-7.542	1.064	6199.812	0.073	-7.542	7.617	171.969
6300.000	0.272	263.743	-7.775	1.158	6299.811	0.681	-7.775	7.860	171.531
6400.000	0.349	289.531	-7.699	0.634	6399.810	0.158	-7.699	7.725	175.291
6500.000	0.521	324.860	-7.225	0.085	6499.807	0.311	-7.225	7.225	179.324
6600.000	0.423	46.919	-6.601	0.093	6599.805	0.624	-6.601	6.601	179.191
6700.000	0.611	180.494	-6.882	0.358	6699.803	0.953	-6.882	6.891	177.018
6770.000	0.305	158.981	-7.429	0.422	6769.801	0.493	-7.429	7.441	176.748