



Company: Noble Energy
Rig: Production/VES
API # 05-123-12921
Date: 5/7/13
Surveyor: Levi Sheldon

Well: Sitzman 03-01
Location: Weld County, Colorado
North Reference: GRID
Convergence: Grid north is -0.62 of True North
Declination: 8.49

VS:
Lat : 40.423
Long: -104.534
Depth Reference: Ground Level
Elevation: 4,607 Feet
Total Depth as Drilled: 6,863 Feet

Lat & Long obtained by handheld GPS at wellhead

HA 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	0.469	334.274	0.369	-0.178	99.999	0.469	0.369	0.410	334.274
200.000	0.244	164.985	0.532	-0.300	199.998	0.711	0.532	0.611	330.554
300.000	0.272	160.655	0.102	-0.167	299.997	0.034	0.102	0.195	301.570
400.000	0.533	283.578	-0.012	-0.540	399.996	0.718	-0.012	0.540	268.721
500.000	0.620	258.293	-0.013	-1.522	499.991	0.266	-0.013	1.522	269.528
600.000	0.516	235.799	-0.375	-2.424	599.986	0.244	-0.375	2.453	261.199
700.000	0.461	196.566	-1.014	-2.911	699.983	0.332	-1.014	3.083	250.800
800.000	0.518	207.613	-1.799	-3.235	799.979	0.110	-1.799	3.702	240.916
900.000	0.666	258.081	-2.320	-4.013	899.974	0.522	-2.320	4.636	239.971
1000.000	0.511	201.802	-2.854	-4.748	999.970	0.572	-2.854	5.540	238.990
1100.000	0.565	237.268	-3.535	-5.328	1099.965	0.332	-3.535	6.394	236.441
1200.000	0.628	246.403	-4.021	-6.245	1199.960	0.114	-4.021	7.428	237.227
1300.000	0.209	219.444	-4.381	-6.863	1299.957	0.451	-4.381	8.142	237.449
1400.000	0.134	320.009	-4.433	-7.055	1399.957	0.268	-4.433	8.332	237.857
1500.000	0.232	337.886	-4.155	-7.206	1499.956	0.113	-4.155	8.318	240.030
1600.000	0.367	309.250	-3.765	-7.530	1599.955	0.197	-3.765	8.419	243.438
1700.000	0.468	226.756	-3.842	-8.076	1699.953	0.556	-3.842	8.943	244.559
1800.000	0.508	150.382	-4.507	-8.155	1799.951	0.604	-4.507	9.317	241.069
1900.000	0.092	60.707	-4.854	-7.866	1899.949	0.516	-4.854	9.243	238.323
2000.000	0.535	70.141	-4.656	-7.356	1999.947	0.445	-4.656	8.706	237.671
2100.000	1.061	86.432	-4.439	-5.993	2099.937	0.568	-4.439	7.458	233.469
2200.000	1.436	97.107	-4.537	-3.825	2199.914	0.439	-4.537	5.934	220.138
2300.000	1.343	77.708	-4.442	-1.437	2299.885	0.477	-4.442	4.669	197.927
2400.000	0.523	70.835	-4.043	0.139	2399.871	0.827	-4.043	4.045	178.029
2500.000	1.193	95.836	-3.999	1.606	2499.859	0.752	-3.999	4.309	158.122
2600.000	1.028	71.948	-3.827	3.494	2599.841	0.487	-3.827	5.182	137.600
2700.000	0.978	115.473	-3.916	5.118	2699.827	0.745	-3.916	6.444	127.421
2800.000	1.337	101.204	-4.510	7.033	2799.807	0.458	-4.510	8.355	122.669
2900.000	0.590	131.659	-5.079	8.562	2899.792	0.881	-5.079	9.955	120.674
3000.000	0.533	55.857	-5.160	9.332	2999.789	0.691	-5.160	10.664	118.939
3100.000	1.107	97.013	-5.017	10.676	3099.779	0.788	-5.017	11.796	115.169
3200.000	0.302	98.589	-5.174	11.895	3199.770	0.805	-5.174	12.972	113.508
3300.000	0.187	220.087	-5.338	12.051	3299.770	0.430	-5.338	13.180	113.891
3400.000	0.356	61.750	-5.315	12.220	3399.769	0.534	-5.315	13.326	113.508
3500.000	0.357	98.599	-5.215	12.801	3499.768	0.225	-5.215	13.822	112.165

3600.000	0.429	99.167	-5.321	13.478	3599.765	0.073	-5.321	14.491	111.543
3700.000	0.110	16.597	-5.289	13.876	3699.764	0.429	-5.289	14.850	110.866
3800.000	0.639	163.772	-5.733	14.059	3799.762	0.733	-5.733	15.183	112.184
3900.000	0.689	176.342	-6.868	14.253	3899.756	0.154	-6.868	15.822	115.729
4000.000	0.517	246.445	-7.649	13.878	3999.751	0.707	-7.649	15.846	118.863
4100.000	0.324	330.400	-7.583	13.324	4099.749	0.581	-7.583	15.331	119.646
4200.000	0.889	255.867	-7.527	12.432	4199.744	0.861	-7.527	14.533	121.192
4300.000	0.062	11.768	-7.664	11.691	4299.741	0.917	-7.664	13.979	123.245
4400.000	0.783	187.071	-8.289	11.618	4399.738	0.845	-8.289	14.272	125.508
4500.000	0.820	188.844	-9.675	11.424	4499.728	0.044	-9.675	14.970	130.261
4600.000	0.908	251.440	-10.634	10.562	4599.719	0.901	-10.634	14.988	135.193
4700.000	0.490	266.831	-10.910	9.384	4699.711	0.455	-10.910	14.390	139.299
4800.000	0.559	176.901	-11.421	8.983	4799.708	0.743	-11.421	14.530	141.812
4900.000	0.846	249.396	-12.168	8.318	4899.702	0.863	-12.168	14.740	145.642
5000.000	0.517	248.445	-12.594	7.207	4999.695	0.329	-12.594	14.510	150.218
5100.000	0.678	234.641	-13.102	6.305	5099.690	0.215	-13.102	14.540	154.303
5200.000	0.216	312.768	-13.317	5.684	5199.687	0.668	-13.317	14.479	156.887
5300.000	0.391	261.532	-13.239	5.208	5299.686	0.306	-13.239	14.226	158.527
5400.000	0.213	79.582	-13.256	5.054	5399.685	0.604	-13.256	14.186	159.131
5500.000	0.538	26.662	-12.802	5.447	5499.683	0.443	-12.802	13.913	156.951
5600.000	0.475	63.787	-12.199	6.030	5599.679	0.328	-12.199	13.608	153.698
5700.000	0.321	296.030	-11.894	6.151	5699.678	0.718	-11.894	13.390	152.654
5800.000	0.347	75.955	-11.697	6.193	5799.677	0.627	-11.697	13.236	152.102
5900.000	0.217	327.377	-11.465	6.385	5899.677	0.464	-11.465	13.123	150.887
6000.000	0.423	206.717	-11.635	6.117	5999.676	0.565	-11.635	13.145	152.267
6100.000	0.324	65.583	-11.848	6.208	6099.675	0.705	-11.848	13.376	152.345
6200.000	0.708	187.906	-12.343	6.381	6199.672	0.923	-12.343	13.895	152.665
6300.000	0.851	265.581	-13.013	5.555	6299.666	0.984	-13.013	14.149	156.884
6400.000	1.749	290.116	-12.545	3.381	6399.639	1.036	-12.545	12.993	164.916
6500.000	1.270	320.989	-11.160	1.251	6499.606	0.927	-11.160	11.230	173.603
6600.000	1.040	327.800	-9.531	0.070	6599.586	0.267	-9.531	9.531	179.578
6700.000	1.422	323.099	-7.771	-1.158	6699.562	0.395	-7.771	7.857	188.479