



Company: Noble Energy
Rig: Production/VES
API # 05-123-26426

Date: 3/15/13
Surveyor: Nick Kula

VS:
Lat : 40.272
Long: -104.749

Well: UPRC K35-19
Location: Weld County, Colorado
North Reference: GRID
Convergence: Grid north is -0.49 of Tr
Declination: 8.61

Depth Reference: Ground Level
Elevation: 4791.00 Feet

Total Depth as Drilled: 7,428 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	0.000
100.000	0.366	17.444	0.304	0.096	99.999	0.366	0.304	0.319	17.444
200.000	0.365	359.591	0.927	0.189	199.997	0.113	0.927	0.946	11.527
300.000	0.340	8.143	1.539	0.229	299.995	0.058	1.539	1.556	8.458
400.000	0.300	43.690	2.022	0.452	399.994	0.199	2.022	2.071	12.598
500.000	0.383	59.667	2.380	0.922	499.992	0.126	2.380	2.552	21.169
600.000	0.528	113.644	2.364	1.633	599.989	0.434	2.364	2.873	34.633
700.000	0.491	124.436	1.937	2.409	699.986	0.103	1.937	3.091	51.203
800.000	0.289	128.828	1.536	2.959	799.983	0.205	1.536	3.334	62.564
900.000	0.238	134.043	1.234	3.305	899.982	0.056	1.234	3.528	69.529
1000.000	0.188	112.503	1.027	3.605	999.981	0.094	1.027	3.749	74.106
1100.000	0.153	143.340	0.857	3.836	1099.981	0.096	0.857	3.931	77.411
1200.000	0.168	55.651	0.832	4.037	1199.981	0.223	0.832	4.122	78.350
1300.000	0.287	51.153	1.072	4.353	1299.980	0.120	1.072	4.483	76.165
1400.000	0.200	102.870	1.190	4.718	1399.979	0.226	1.190	4.866	75.842
1500.000	0.306	311.195	1.327	4.687	1499.979	0.491	1.327	4.872	74.189
1600.000	0.532	245.756	1.313	4.063	1599.976	0.491	1.313	4.270	72.094
1700.000	0.870	251.721	0.884	2.918	1699.969	0.346	0.884	3.049	73.151
1800.000	0.680	211.681	0.140	1.885	1799.960	0.560	0.140	1.890	85.746
1900.000	0.890	277.922	-0.258	0.803	1899.953	0.876	-0.258	0.844	107.805
2000.000	0.747	296.099	0.136	-0.552	1999.943	0.295	0.136	0.568	283.839
2100.000	0.601	283.735	0.547	-1.647	2099.936	0.205	0.547	1.736	288.383
2200.000	0.670	276.227	0.735	-2.738	2199.930	0.108	0.735	2.835	285.034
2300.000	0.494	315.953	1.108	-3.618	2299.925	0.429	1.108	3.784	287.030
2400.000	0.527	342.538	1.856	-4.056	2399.921	0.237	1.856	4.460	294.594
2500.000	0.549	308.200	2.591	-4.570	2499.917	0.318	2.591	5.253	299.551
2600.000	0.779	283.839	3.050	-5.607	2599.910	0.359	3.050	6.383	298.545
2700.000	0.845	324.245	3.811	-6.698	2699.901	0.564	3.811	7.706	299.639
2800.000	0.792	275.005	4.470	-7.817	2799.892	0.684	4.470	9.005	299.760
2900.000	1.574	302.674	5.271	-9.662	2899.871	0.947	5.271	11.006	298.616
3000.000	1.783	323.766	7.268	-11.737	2999.829	0.648	7.268	13.805	301.765
3100.000	1.806	301.467	9.345	-14.001	3099.781	0.694	9.345	16.833	303.721
3200.000	1.805	307.838	11.133	-16.588	3199.731	0.201	11.133	19.978	303.868
3300.000	1.505	282.006	12.373	-19.117	3299.691	0.795	12.373	22.771	302.911
3400.000	1.129	287.769	12.946	-21.339	3399.664	0.398	12.946	24.960	301.245
3500.000	1.263	319.225	14.082	-22.997	3499.643	0.661	14.082	26.966	301.480

3600.000	1.049	309.068	15.494	-24.428	3599.623	0.296	15.494	28.927	302.385
3700.000	0.443	296.440	16.242	-25.485	3699.614	0.625	16.242	30.220	302.511
3800.000	0.337	202.054	16.142	-25.941	3799.613	0.577	16.142	30.553	301.892
3900.000	0.830	221.441	15.326	-26.531	3899.607	0.524	15.326	30.639	300.014
4000.000	0.526	248.845	14.618	-27.437	3999.600	0.436	14.618	31.088	298.047
4100.000	1.043	248.308	14.116	-28.711	4099.591	0.518	14.116	31.993	296.181
4200.000	0.894	224.781	13.225	-30.106	4199.577	0.421	13.225	32.883	293.715
4300.000	0.950	252.689	12.425	-31.448	4299.564	0.448	12.425	33.813	291.558
4400.000	0.898	230.881	11.683	-32.848	4399.552	0.353	11.683	34.863	289.580
4500.000	1.046	212.288	10.417	-33.943	4499.538	0.347	10.417	35.506	287.061
4600.000	0.661	208.479	9.138	-34.706	4599.526	0.389	9.138	35.889	284.751
4700.000	0.445	184.989	8.244	-35.015	4699.522	0.309	8.244	35.972	283.248
4800.000	0.420	94.966	7.825	-34.684	4799.520	0.612	7.825	35.555	282.713
4900.000	0.697	62.032	8.078	-33.781	4899.515	0.414	8.078	34.733	283.449
5000.000	0.808	70.041	8.604	-32.580	4999.506	0.152	8.604	33.698	284.794
5100.000	0.868	81.624	8.955	-31.169	5099.496	0.179	8.955	32.430	286.030
5200.000	0.510	7.115	9.508	-30.365	5199.490	0.881	9.508	31.818	287.386
5300.000	0.122	138.964	9.869	-30.239	5299.489	0.599	9.869	31.809	288.075
5400.000	0.094	144.555	9.722	-30.122	5399.489	0.030	9.722	31.652	287.888
5500.000	0.181	216.144	9.528	-30.168	5499.489	0.175	9.528	31.636	287.528
5600.000	0.305	299.684	9.533	-30.492	5599.488	0.336	9.533	31.947	287.361
5700.000	0.355	180.367	9.355	-30.725	5699.487	0.570	9.355	32.117	286.934
5800.000	0.344	109.544	8.945	-30.443	5799.486	0.405	8.945	31.730	286.374
5900.000	0.455	275.497	8.883	-30.556	5899.485	0.794	8.883	31.821	286.209
6000.000	0.424	260.201	8.858	-31.316	5999.482	0.121	8.858	32.544	285.794
6100.000	0.672	298.263	9.073	-32.197	6099.477	0.428	9.073	33.451	285.737
6200.000	0.492	261.298	9.285	-33.138	6199.473	0.407	9.285	34.414	285.653
6300.000	0.859	302.588	9.624	-34.194	6299.466	0.587	9.624	35.523	285.720
6400.000	0.894	264.814	9.957	-35.603	6399.455	0.568	9.957	36.969	285.625
6500.000	0.743	237.108	9.535	-36.924	6499.445	0.418	9.535	38.135	284.479
6600.000	0.806	252.662	8.973	-38.140	6599.436	0.219	8.973	39.182	283.239
6700.000	1.037	253.547	8.507	-39.680	6699.423	0.231	8.507	40.581	282.100

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