



**Company:** Noble Energy  
**Rig:** Production/VES  
**API #** 05-123-16345

**Date:** 41348.000  
**Surveyor:** Nick Kula

**VS:** 0.000

**Lat :** 40.27

**Long:** -104.747

**Well:** UPCR 35-6F

**Location:** Weld County, Colorado

**North Reference:** GRID

**Convergence:** Grid north is -0.49 of Tr

**Declination:** 8.61

**Depth Reference:** Ground Level

**Elevation:** 4,796.00

**Total Depth as Drilled:** 7328 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
100.000	0.175	171.704	-0.151	0.022	100.000	0.175	-0.151	0.153	171.704
200.000	0.117	166.694	-0.402	0.068	200.000	0.060	-0.402	0.408	170.453
300.000	0.364	209.969	-0.776	-0.068	299.999	0.290	-0.776	0.779	184.973
400.000	0.038	351.335	-1.019	-0.231	399.998	0.394	-1.019	1.044	192.788
500.000	0.173	242.587	-1.055	-0.370	499.998	0.189	-1.055	1.118	199.337
600.000	0.066	351.563	-1.068	-0.513	599.998	0.204	-1.068	1.185	205.655
700.000	0.318	283.957	-0.944	-0.790	699.997	0.299	-0.944	1.231	219.936
800.000	0.192	341.751	-0.718	-1.112	799.996	0.270	-0.718	1.324	237.131
900.000	0.289	300.198	-0.433	-1.382	899.995	0.193	-0.433	1.448	252.609
1000.000	0.413	284.431	-0.216	-1.948	999.994	0.156	-0.216	1.960	263.663
1100.000	0.250	315.692	0.029	-2.449	1099.992	0.238	0.029	2.449	270.684
1200.000	0.211	290.895	0.251	-2.773	1199.991	0.106	0.251	2.785	275.168
1300.000	0.273	308.004	0.463	-3.133	1299.990	0.095	0.463	3.167	278.413
1400.000	0.335	325.112	0.850	-3.489	1399.989	0.109	0.850	3.591	283.699
1500.000	0.447	304.088	1.309	-3.979	1499.987	0.180	1.309	4.189	288.212
1600.000	0.559	283.064	1.638	-4.778	1599.983	0.214	1.638	5.051	288.926
1700.000	0.632	274.540	1.792	-5.803	1699.977	0.115	1.792	6.073	287.164
1800.000	0.705	266.016	1.793	-6.966	1799.971	0.123	1.793	7.193	284.435
1900.000	0.804	267.858	1.724	-8.280	1899.962	0.102	1.724	8.458	281.762
2000.000	0.903	269.699	1.694	-9.769	1999.951	0.103	1.694	9.915	279.836
2100.000	1.047	274.174	1.756	-11.468	2099.936	0.163	1.756	11.602	278.706
2200.000	1.192	278.649	1.979	-13.408	2199.917	0.169	1.979	13.554	278.396
2300.000	1.160	280.545	2.321	-15.432	2299.896	0.051	2.321	15.605	278.553
2400.000	1.127	282.442	2.718	-17.387	2399.876	0.050	2.718	17.598	278.884
2500.000	1.204	281.184	3.133	-19.378	2499.856	0.081	3.133	19.629	279.185
2600.000	1.281	279.927	3.530	-21.510	2599.832	0.082	3.530	21.797	279.320
2700.000	1.275	268.446	3.693	-23.723	2699.807	0.256	3.693	24.009	278.847
2800.000	1.269	256.966	3.413	-25.914	2799.783	0.254	3.413	26.138	277.502
2900.000	1.378	257.251	2.898	-28.165	2899.756	0.109	2.898	28.314	275.874
3000.000	1.486	257.536	2.352	-30.604	2999.725	0.109	2.352	30.694	274.396
3100.000	1.507	257.960	1.798	-33.156	3099.691	0.023	1.798	33.205	273.104
3200.000	1.527	288.384	1.944	-35.707	3199.657	0.796	1.944	35.760	273.117
3300.000	1.074	320.985	3.093	-37.562	3299.633	0.850	3.093	37.689	274.707
3400.000	0.621	23.586	4.318	-37.935	3399.623	0.962	4.318	38.180	276.494
3500.000	0.709	90.327	4.812	-37.100	3499.618	0.735	4.812	37.410	277.390
3600.000	0.797	137.067	4.299	-36.007	3599.610	0.603	4.299	36.263	276.808

3700.000	1.202	150.349	2.878	-35.015	3699.595	0.464	2.878	35.133	274.699
3800.000	1.607	163.631	0.621	-34.101	3799.565	0.517	0.621	34.106	271.043
3900.000	1.722	175.021	-2.221	-33.575	3899.523	0.349	-2.221	33.648	266.215
4000.000	1.836	186.411	-5.309	-33.623	3999.475	0.371	-5.309	34.040	261.027
4100.000	2.080	207.417	-8.512	-34.638	4099.418	0.753	-8.512	35.668	256.194
4200.000	2.324	228.424	-11.468	-36.991	4199.346	0.838	-11.468	38.728	252.775
4300.000	2.162	239.767	-13.764	-40.137	4299.269	0.472	-13.764	42.432	251.072
4400.000	2.000	251.111	-15.279	-43.418	4399.204	0.442	-15.279	46.028	250.613
4500.000	1.780	258.979	-16.140	-46.594	4499.150	0.339	-16.140	49.310	250.894
4600.000	1.561	266.847	-16.512	-49.479	4599.107	0.317	-16.512	52.161	251.545
4700.000	1.105	300.542	-16.097	-51.669	4699.081	0.887	-16.097	54.119	252.696
4800.000	0.650	334.237	-15.096	-52.747	4799.070	0.670	-15.096	54.864	254.029
4900.000	0.666	325.396	-14.107	-53.323	4899.063	0.103	-14.107	55.158	255.182
5000.000	0.682	316.556	-13.197	-54.062	4999.056	0.105	-13.197	55.650	256.282
5100.000	0.603	291.583	-12.571	-54.961	5099.050	0.288	-12.571	56.380	257.117
5200.000	0.525	266.609	-12.404	-55.908	5199.046	0.256	-12.404	57.268	257.490
5300.000	0.362	212.347	-12.698	-56.535	5299.043	0.430	-12.698	57.943	257.341
5400.000	0.199	158.084	-13.126	-56.639	5399.042	0.294	-13.126	58.140	256.952
5500.000	0.224	205.376	-13.464	-56.658	5499.041	0.171	-13.464	58.236	256.633
5600.000	0.249	252.668	-13.705	-56.949	5599.041	0.191	-13.705	58.575	256.469
5700.000	0.509	270.298	-13.768	-57.601	5699.038	0.282	-13.768	59.223	256.557
5800.000	0.768	287.928	-13.559	-58.682	5799.032	0.323	-13.559	60.229	256.990
5900.000	0.911	275.348	-13.278	-60.112	5899.021	0.232	-13.278	61.561	257.544
6000.000	1.054	262.767	-13.320	-61.817	5999.007	0.258	-13.320	63.235	257.840
6100.000	1.387	289.192	-13.038	-63.872	6098.985	0.645	-13.038	65.189	258.463
6200.000	1.720	315.617	-11.568	-66.065	6198.949	0.780	-11.568	67.070	260.068
6300.000	1.553	305.966	-9.699	-68.212	6298.908	0.321	-9.699	68.898	261.907
6400.000	1.387	296.315	-8.366	-70.394	6398.876	0.298	-8.366	70.889	263.222
6500.000	1.561	296.796	-7.216	-72.695	6498.842	0.174	-7.216	73.052	264.331
6600.000	1.735	297.276	-5.908	-75.256	6598.801	0.174	-5.908	75.487	265.511
6700.000	1.620	318.818	-4.151	-77.532	6698.759	0.637	-4.151	77.643	266.936
6800.000	1.505	340.359	-1.849	-78.904	6798.723	0.595	-1.849	78.926	268.657
6900.000	1.253	356.642	0.479	-79.410	6898.694	0.464	0.479	79.411	270.346
7000.000	1.001	12.924	2.422	-79.278	6998.675	0.405	2.422	79.315	271.750
7100.000	0.755	62.986	3.573	-78.496	7098.665	0.776	3.573	78.577	272.606
7200.000	0.509	113.048	3.698	-77.500	7198.659	0.579	3.698	77.588	272.732

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