

GyroTracer Directional:

Date: 3/6/2019
 Operator : Adrian Bruner
 API : 05-123-26868
 Well Name : **New Cache 8-24**
 Field : Noble Energy Inc
 Tool Number: 1717
 Bottom Depth : 6750.00
 Total Well Depth: 6991.00
 Latitude : 40.50238 N
 Longitude : 104.46248 W
 Grid Offset : 0.67
 Datum: NAD 83

**Starting Point Coordinates (in local grid):**

Northing: 0.00 Easting: 0.00 GLE: 4744.00

Description:

Azimuth measured in degrees and referenced to local grid

Inclination measured from Vertical

Length measured in US survey feet

Lat/Long/Elevation obtained by handheld GPS at wellhead. Device error ± 9 Feet

RKB = Ground Level Elevation

Start Time: 3/6/2019 8:17

End Time: 3/6/2019 9:20

Depth	Inclination	Azimuth	Closure Direction	True Depth	Coordinates		Dogleg Severity	Closure Distance
					+N/-S	+E/-W		
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.000	1.310	347.976	302.510	99.970	1.230	-1.930	1.310	2.289
200.000	1.031	344.269	324.692	199.947	3.312	-2.346	0.304	4.058
300.000	1.217	351.930	331.552	299.928	5.209	-2.822	0.149	5.925
400.000	1.300	357.718	338.681	399.904	7.360	-2.872	0.120	7.900
500.000	1.462	18.486	344.421	499.874	9.792	-2.730	0.519	10.166
600.000	1.573	353.057	347.735	599.838	12.459	-2.709	0.685	12.750
700.000	1.682	358.436	348.958	699.802	15.132	-2.953	0.421	15.418
800.000	1.520	344.705	348.450	799.763	17.826	-3.643	0.414	18.194
900.000	1.619	339.899	347.988	899.721	20.597	-4.383	0.183	21.058
1000.000	1.703	341.293	347.636	999.680	23.358	-5.120	0.095	23.912
1100.000	1.559	334.197	346.581	1099.638	26.014	-6.206	0.353	26.744
1200.000	1.517	322.115	344.925	1199.600	28.346	-7.635	0.342	29.357
1300.000	1.428	328.130	343.473	1299.571	30.299	-8.991	0.086	31.605
1400.000	1.139	299.485	341.864	1399.546	31.958	-10.468	0.674	33.628
1500.000	1.157	316.004	340.411	1499.524	33.469	-11.911	0.321	35.526
1600.000	1.154	322.997	339.277	1599.506	34.855	-13.187	0.115	37.266
1700.000	0.924	324.145	338.554	1699.491	36.220	-14.228	0.143	38.914
1800.000	0.956	323.197	338.083	1799.477	37.566	-15.115	0.190	40.493
1900.000	0.734	325.919	337.517	1899.466	38.739	-16.033	0.228	41.925
2000.000	0.831	312.952	336.940	1999.456	39.835	-16.958	0.194	43.294
2100.000	0.785	298.945	336.267	2099.446	40.811	-17.943	0.186	44.581

2200.000	0.955	306.590	335.268	2199.434	41.653	-19.186	0.127	45.860
2300.000	0.864	293.921	333.967	2299.420	42.380	-20.700	0.187	47.165
2400.000	1.082	303.217	332.915	2399.405	43.309	-22.148	0.188	48.644
2500.000	1.062	311.155	331.916	2499.389	44.273	-23.624	0.155	50.181
2600.000	0.598	322.808	331.284	2599.379	45.106	-24.711	0.521	51.431
2700.000	0.306	326.699	331.223	2699.374	45.920	-25.220	0.305	52.390
2800.000	0.365	337.236	331.396	2799.370	46.724	-25.479	0.057	53.219
2900.000	0.368	341.303	331.670	2899.367	47.508	-25.612	0.028	53.972
3000.000	0.508	350.454	331.949	2999.364	48.270	-25.721	0.123	54.695
3100.000	0.510	355.606	332.243	3099.361	49.049	-25.814	0.055	55.427
3200.000	0.547	352.495	332.553	3199.358	49.836	-25.885	0.010	56.158
3300.000	0.896	281.753	332.299	3299.352	50.589	-26.561	0.843	57.138
3400.000	1.222	268.483	330.465	3399.329	50.610	-28.674	0.383	58.168
3500.000	1.429	285.243	328.529	3499.299	50.802	-31.096	0.402	59.564
3600.000	1.703	280.928	326.612	3599.263	51.151	-33.713	0.251	61.262
3700.000	1.720	270.559	324.512	3699.223	51.238	-36.531	0.282	62.927
3800.000	1.760	268.716	322.313	3799.176	51.255	-39.596	0.055	64.768
3900.000	1.712	274.024	320.246	3899.125	51.407	-42.760	0.182	66.866
4000.000	1.547	269.829	318.314	3999.080	51.395	-45.769	0.223	68.820
4100.000	1.383	259.715	316.673	4099.049	51.098	-48.199	0.319	70.244
4200.000	1.270	256.848	315.268	4199.026	50.772	-50.299	0.186	71.469
4300.000	0.896	264.642	314.183	4299.011	50.534	-51.996	0.328	72.507
4400.000	0.625	255.146	313.410	4399.002	50.396	-53.274	0.256	73.333
4500.000	0.612	205.320	312.780	4498.997	50.274	-54.328	0.549	74.020
4600.000	1.546	185.605	311.695	4598.979	48.578	-54.531	1.215	73.030
4700.000	2.140	167.675	309.919	4698.926	45.367	-54.223	0.859	70.699
4800.000	2.378	167.702	307.987	4798.850	41.603	-53.275	0.219	67.594
4900.000	2.309	168.785	305.774	4898.771	37.734	-52.370	0.241	64.548
5000.000	2.335	165.191	303.264	4998.690	33.816	-51.551	0.194	61.653
5100.000	2.199	161.430	300.815	5098.616	30.127	-50.508	0.205	58.811
5200.000	1.811	137.818	298.758	5198.560	27.049	-49.287	0.880	56.222
5300.000	1.535	152.229	297.023	5298.522	24.544	-48.122	0.457	54.020
5400.000	1.498	156.040	295.191	5398.488	22.170	-47.131	0.114	52.085
5500.000	1.600	178.891	292.894	5498.454	19.651	-46.533	0.627	50.512
5600.000	1.498	179.366	290.230	5598.421	17.076	-46.334	0.056	49.381
5700.000	1.486	173.337	287.622	5698.391	14.680	-46.215	0.159	48.490
5800.000	1.103	168.611	285.173	5798.367	12.483	-46.032	0.310	47.694
5900.000	1.100	165.677	282.891	5898.345	10.441	-45.619	0.093	46.798
6000.000	1.124	172.432	280.602	5998.323	8.434	-45.060	0.118	45.843
6100.000	1.307	167.028	278.154	6098.300	6.383	-44.550	0.201	45.005
6200.000	1.391	155.214	275.469	6198.272	4.187	-43.723	0.290	43.923
6300.000	1.545	140.700	272.758	6298.240	2.044	-42.440	0.391	42.489
6400.000	1.724	145.026	269.575	6398.201	-0.303	-40.903	0.248	40.905
6500.000	1.855	140.363	265.725	6498.150	-2.930	-39.197	0.204	39.307
6600.000	1.984	80.112	263.991	6598.088	-3.798	-36.078	1.975	36.277
6700.000	2.840	42.147	267.668	6697.977	-1.314	-32.280	1.746	32.307
6750.220	2.800	35.240	271.344	6748.135	0.724	-30.847	1.202	30.855