

GyroTracer Directional:

Date: 1/7/2019
 Operator: Adrian Bruner
 API: 05-123-35419
 Well Name: **Front Range D 9-25D**
 Field: Noble Energy Inc
 Tool Number: 1719
 Bottom Depth: 7050.00
 Total Well Depth: 7358.00
 Latitude: 40.23603 N
 Longitude: 104.56491 W
 Grid Offset: 0.60
 Datum: NAD 83

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

Northing: 0.00 Easting: 0.00 GLE: 4733.00

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: 1/7/2019 10:22

End Time: 1/7/2019 12:19

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	0.270	335.797	340.017	100.000	0.440	-0.160	0.270	0.468
200.000	0.457	336.822	355.324	199.998	0.794	-0.065	0.198	0.797
300.000	0.113	110.043	343.787	299.996	0.853	-0.248	0.523	0.888
400.000	0.103	313.308	322.565	399.995	0.772	-0.591	0.163	0.972
500.000	0.245	252.943	303.585	499.993	0.671	-1.010	0.231	1.212
600.000	0.308	213.487	292.717	599.991	0.606	-1.448	0.214	1.569
700.000	0.340	205.933	284.453	699.987	0.531	-2.062	0.083	2.130
800.000	0.037	168.352	276.886	799.985	0.295	-2.445	0.283	2.463
900.000	1.513	72.265	285.166	899.974	0.335	-1.235	1.517	1.280
1000.000	3.481	68.858	55.890	999.887	1.734	2.560	1.993	3.092
1100.000	5.280	79.398	70.388	1099.625	3.384	9.497	2.052	10.082
1200.000	7.250	81.897	76.113	1199.058	4.933	19.952	2.007	20.552
1300.000	8.738	86.294	79.150	1298.094	6.455	33.680	1.614	34.293
1400.000	11.270	82.459	80.804	1396.479	8.327	51.434	2.613	52.104
1500.000	13.264	80.704	81.188	1494.113	11.290	72.828	2.064	73.698
1600.000	14.366	78.831	80.806	1591.253	15.566	96.173	1.175	97.424
1700.000	16.744	79.374	80.500	1687.634	20.474	122.346	2.396	124.047
1800.000	17.246	78.939	80.227	1783.199	26.055	151.260	0.510	153.488
1900.000	18.628	79.476	80.079	1878.318	31.759	181.582	1.395	184.338
2000.000	19.451	79.470	79.994	1972.827	37.708	213.713	0.811	217.014
2100.000	20.628	77.960	79.798	2066.629	44.574	247.676	1.287	251.655

2200.000	20.360	79.437	79.611	2160.245	51.720	282.098	0.580	286.799
2300.000	19.430	78.658	79.575	2254.252	58.063	315.597	0.972	320.894
2400.000	19.560	77.247	79.473	2348.505	64.728	348.335	0.507	354.298
2500.000	19.717	77.910	79.291	2442.678	72.083	381.156	0.275	387.913
2600.000	20.769	78.619	79.218	2536.519	79.029	415.001	1.090	422.459
2700.000	21.748	77.904	79.142	2629.587	86.469	450.811	1.024	459.028
2800.000	21.421	76.525	79.008	2722.528	94.559	486.811	0.619	495.909
2900.000	21.640	76.368	78.816	2815.620	103.262	522.279	0.238	532.389
3000.000	21.415	78.550	78.742	2908.489	111.179	558.503	0.823	569.462
3100.000	19.738	77.057	78.693	3002.101	118.548	592.876	1.775	604.612
3200.000	18.890	77.696	78.621	3096.229	125.945	625.815	0.850	638.362
3300.000	17.643	75.939	78.539	3191.053	133.147	656.730	1.377	670.091
3400.000	17.830	78.901	78.524	3286.531	139.231	685.827	0.924	699.817
3500.000	18.757	77.361	78.483	3381.345	146.070	716.863	1.033	731.594
3600.000	19.487	78.329	78.459	3475.776	152.955	749.037	0.789	764.494
3700.000	19.935	78.359	78.430	3570.072	160.010	781.567	0.481	797.778
3800.000	20.565	81.497	78.507	3663.920	165.838	815.599	1.255	832.288
3900.000	21.180	80.706	78.605	3757.250	171.518	851.052	0.652	868.163
4000.000	21.506	80.252	78.684	3850.138	177.622	887.582	0.370	905.181
4100.000	21.197	79.685	78.740	3943.264	183.866	923.477	0.361	941.603
4200.000	21.864	79.658	78.777	4036.413	190.346	959.268	0.683	977.971
4300.000	21.535	80.284	78.815	4129.071	196.991	996.284	0.419	1015.572
4400.000	21.619	76.567	78.778	4222.371	204.645	1031.437	1.385	1051.543
4500.000	22.459	79.056	78.736	4315.084	212.708	1068.025	1.276	1089.000
4600.000	21.600	77.443	78.737	4407.639	220.097	1105.156	1.075	1126.860
4700.000	18.690	77.513	78.703	4501.264	227.610	1139.428	2.945	1161.939
4800.000	16.660	79.508	78.683	4596.699	233.865	1168.615	2.099	1191.786
4900.000	14.913	78.141	78.694	4693.022	238.901	1194.980	1.789	1218.627
5000.000	12.048	77.970	78.685	4790.307	243.619	1217.579	2.833	1241.712
5100.000	10.882	79.621	78.682	4888.490	247.423	1236.157	1.296	1260.675
5200.000	10.010	79.731	78.683	4986.798	250.983	1254.114	0.874	1278.982
5300.000	7.420	80.124	78.687	5085.587	253.931	1269.284	2.587	1294.436
5400.000	5.050	78.806	78.696	5184.918	255.983	1280.547	2.386	1305.882
5500.000	3.685	84.021	78.719	5284.606	256.979	1288.300	1.429	1313.681
5600.000	2.124	86.717	78.772	5384.476	256.754	1293.353	1.408	1318.592
5700.000	1.701	74.086	78.810	5484.415	256.521	1296.707	0.531	1321.836
5800.000	1.190	71.534	78.776	5584.376	257.802	1299.086	0.129	1324.420
5900.000	0.865	65.945	78.756	5684.350	258.677	1301.156	0.372	1326.620
6000.000	0.580	99.168	78.750	5784.333	259.144	1302.782	0.432	1328.306
6100.000	0.999	85.520	78.756	5884.321	259.274	1304.204	0.320	1329.726
6200.000	0.637	92.212	78.774	5984.313	259.088	1305.352	0.339	1330.816
6300.000	0.094	29.485	78.787	6084.308	258.921	1306.115	0.538	1331.531
6400.000	0.276	9.425	78.789	6184.305	258.977	1306.630	0.191	1332.048
6500.000	0.249	54.556	78.783	6284.302	259.220	1307.065	0.299	1332.522
6600.000	0.620	29.930	78.771	6384.299	259.590	1307.561	0.516	1333.080
6700.000	0.557	310.776	78.750	6484.295	260.064	1307.451	0.763	1333.064
6800.000	0.113	110.860	78.740	6584.292	260.248	1307.121	0.648	1332.777
6900.000	0.377	272.272	78.738	6684.290	260.191	1306.689	0.536	1332.342
7000.000	0.706	245.135	78.739	6784.288	260.092	1306.215	0.308	1331.857
7050.000	0.210	195.260	78.742	6834.336	259.970	1306.045	0.688	1331.667