

**GyroTracer Directional:**

Date: 8/13/2018  
 Operator : Adrian Bruner  
 API: 05-123-23600  
 Well Name: **Dunbar 18-35**  
 Field : Noble Energy Inc  
 Tool Type And Number: 1605  
 Bottom Depth : 7050.00  
 Total Well Depth: 7365.00  
 Latitude : 40.48353 N  
 Longitude : 104.82717 W  
 Grid Offset : 0.43

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

Northing: 0.00      Easting: 0.00      Altitude: 4822.00

**Description:**

*Azimuth measured in degrees and referenced to local grid*

*Inclination measured from Vertical*

*Length measured in US survey feet*

Start Time: 8/10/2018 8:14

End Time: 8/10/2018 8:58

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	0.410	217.829	217.829	99.999	-0.283	-0.219	0.123	0.358
200.000	0.474	215.570	217.002	199.996	-0.902	-0.679	0.020	1.129
300.000	0.409	203.980	214.253	299.993	-1.564	-1.065	0.033	1.892
400.000	0.327	220.986	213.568	399.991	-2.106	-1.397	0.041	2.527
500.000	0.291	314.717	219.482	499.990	-2.142	-1.765	0.135	2.776
600.000	0.410	328.077	232.127	599.988	-1.660	-2.135	0.043	2.704
700.000	0.466	346.355	248.334	699.985	-0.961	-2.420	0.045	2.604
800.000	0.483	347.533	266.607	799.982	-0.155	-2.607	0.003	2.611
900.000	0.580	331.851	283.469	899.978	0.703	-2.936	0.052	3.019
1000.000	0.600	323.922	294.298	999.973	1.573	-3.484	0.025	3.822
1100.000	0.552	332.877	301.150	1099.967	2.425	-4.011	0.031	4.687
1200.000	0.582	311.817	304.701	1199.963	3.192	-4.610	0.063	5.607
1300.000	0.681	315.260	306.171	1299.957	3.953	-5.406	0.032	6.697
1400.000	0.642	312.715	307.324	1399.950	4.755	-6.236	0.015	7.842
1500.000	0.543	286.471	306.572	1499.945	5.269	-7.102	0.086	8.844
1600.000	0.633	299.343	305.219	1599.940	5.674	-8.038	0.024	9.839
1700.000	0.714	285.345	303.818	1699.933	6.110	-9.121	0.055	10.978
1800.000	0.924	286.426	301.783	1799.922	6.503	-10.495	0.063	12.346
1900.000	0.864	283.522	299.921	1899.910	6.907	-12.001	0.023	13.847
2000.000	1.023	286.365	298.355	1999.897	7.335	-13.591	0.050	15.444
2100.000	1.090	309.640	298.358	2099.880	8.193	-15.180	0.129	17.250
2200.000	1.473	308.577	299.577	2199.855	9.601	-16.917	0.058	19.452
2300.000	1.742	325.260	301.806	2299.816	11.652	-18.788	0.161	22.108

2400.000	1.848	334.942	305.229	2399.767	14.362	-20.337	0.096	24.897
2500.000	2.077	336.488	308.803	2499.708	17.484	-21.743	0.071	27.901
2600.000	2.280	337.192	312.077	2599.636	20.979	-23.237	0.061	31.306
2700.000	2.248	326.470	314.256	2699.559	24.448	-25.092	0.127	35.033
2800.000	2.524	342.098	316.381	2799.473	28.178	-26.852	0.106	38.923
2900.000	2.536	343.446	319.001	2899.375	32.394	-28.159	0.018	42.922
3000.000	2.519	338.855	321.026	2999.278	36.564	-29.582	0.061	47.032
3100.000	2.287	342.840	322.615	3099.190	40.520	-30.963	0.086	50.996
3200.000	1.918	343.086	323.957	3199.123	44.028	-32.039	0.055	54.451
3300.000	1.682	331.180	324.687	3299.074	46.915	-33.233	0.132	57.493
3400.000	1.701	315.987	324.632	3399.031	49.268	-34.972	0.134	60.418
3500.000	1.586	328.020	324.504	3498.990	51.509	-36.736	0.109	63.267
3600.000	1.626	321.150	324.505	3598.951	53.788	-38.359	0.029	66.065
3700.000	1.710	319.140	324.320	3698.908	56.021	-40.225	0.031	68.967
3800.000	1.440	319.920	324.136	3798.870	58.111	-42.010	0.081	71.706
3900.000	1.461	317.411	323.949	3898.838	60.011	-43.682	0.020	74.226
4000.000	1.226	326.073	323.870	3998.811	61.837	-45.142	0.046	76.561
4100.000	1.320	339.965	324.132	4098.786	63.807	-46.134	0.048	78.738
4200.000	1.560	334.673	324.530	4198.755	66.120	-47.110	0.082	81.186
4300.000	1.553	328.252	324.754	4298.718	68.502	-48.406	0.052	83.879
4400.000	1.863	339.223	325.076	4398.674	71.174	-49.695	0.067	86.807
4500.000	1.625	336.491	325.509	4498.627	73.994	-50.838	0.038	89.775
4600.000	1.683	332.628	325.789	4598.586	76.599	-52.078	0.019	92.626
4700.000	1.973	338.721	326.124	4698.535	79.507	-53.378	0.052	95.763
4800.000	1.981	334.971	326.494	4798.475	82.677	-54.734	0.019	99.153
4900.000	1.873	327.978	326.661	4898.419	85.629	-56.332	0.039	102.497
5000.000	1.570	326.389	326.677	4998.374	88.155	-57.957	0.046	105.500
5100.000	1.565	308.202	326.445	5098.337	90.140	-59.788	0.074	108.166
5200.000	1.480	322.454	326.177	5198.302	92.009	-61.648	0.058	110.753
5300.000	1.173	312.813	326.014	5298.275	93.728	-63.186	0.057	113.038
5400.000	1.158	311.564	325.772	5398.254	95.094	-64.693	0.004	115.014
5500.000	1.240	336.911	325.753	5498.233	96.760	-65.873	0.080	117.055
5600.000	1.084	320.019	325.809	5598.213	98.480	-66.906	0.056	119.058
5700.000	0.770	320.591	325.734	5698.200	99.724	-67.940	0.047	120.668
5800.000	0.720	295.725	325.558	5798.191	100.516	-68.933	0.049	121.882
5900.000	0.725	264.606	325.154	5898.184	100.729	-70.128	0.058	122.737
6000.000	0.905	254.660	324.552	5998.174	100.461	-71.520	0.034	123.319
6100.000	1.071	239.680	323.778	6098.159	99.780	-73.088	0.046	123.685
6200.000	0.852	222.718	323.009	6198.145	98.762	-74.399	0.054	123.650
6300.000	1.118	223.134	322.222	6298.130	97.504	-75.571	0.040	123.361
6400.000	1.051	213.463	321.369	6398.112	96.027	-76.743	0.029	122.926
6500.000	1.246	200.947	320.519	6498.092	94.247	-77.638	0.047	122.107
6600.000	1.204	194.634	319.668	6598.070	92.215	-78.292	0.021	120.968
6700.000	0.336	159.404	319.210	6698.060	90.924	-78.454	0.142	120.092
6800.000	0.523	136.943	319.171	6798.057	90.316	-78.040	0.037	119.361
6900.000	0.529	132.139	319.206	6898.053	89.672	-77.386	0.007	118.447
7000.000	0.796	85.919	319.505	6998.047	89.412	-76.350	0.086	117.575
7050.000	0.580	103.640	319.715	7048.043	89.377	-75.758	0.090	117.165