

**GyroTracer Directional:**

Date: 7/2/2018  
 Operator : David England  
 API: 05-123-24764  
 Well Name: **Kreykes 13-14**  
 Field : Noble Energy Inc  
 Tool Type And Number: 1717  
 Bottom Depth : 7100.00  
 Total Well Depth: 7403.00  
 Latitude : 40.4894 N  
 Longitude : 104.83408 W  
 Grid Offset : 0.43

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

Northing: 0.00      Easting: 0.00      Altitude: 4856.00

**Description:**

*Azimuth measured in degrees and referenced to local grid*

*Inclination measured from Vertical*

*Length measured in US survey feet*

Start Time: 7/2/2018 12:31

End Time: 7/2/2018 13:50

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
100.820	0.140	73.791	55.008	100.820	0.140	0.200	0.139	0.244
200.000	0.370	111.964	54.202	200.000	0.201	0.279	0.276	0.344
300.000	0.354	323.394	355.844	299.997	0.578	-0.042	0.583	0.580
400.000	0.480	24.103	350.027	399.994	1.303	-0.229	0.504	1.323
500.000	0.436	30.164	9.119	499.989	1.994	0.320	0.121	2.019
600.000	0.650	48.229	19.684	599.981	2.964	1.060	0.222	3.147
700.000	0.769	55.152	27.813	699.974	3.725	1.965	0.096	4.212
800.000	0.482	41.326	33.139	799.969	4.290	2.801	0.295	5.123
900.000	0.739	52.169	33.628	899.962	5.169	3.438	0.242	6.208
1000.000	0.525	40.837	36.579	999.956	5.828	4.325	0.227	7.257
1100.000	0.457	1.820	36.611	1099.950	6.646	4.938	0.348	8.279
1200.000	0.361	24.097	34.903	1199.946	7.519	5.246	0.154	9.169
1300.000	0.104	131.993	33.864	1299.943	8.020	5.382	0.423	9.658
1400.000	0.441	350.797	32.404	1399.941	8.502	5.397	0.757	10.070
1500.000	0.328	311.056	30.361	1499.937	9.315	5.457	0.246	10.796
1600.000	0.386	336.265	27.469	1599.934	9.907	5.151	0.138	11.166
1700.000	0.519	336.536	24.427	1699.930	10.713	4.865	0.052	11.766
1800.000	0.312	339.786	22.096	1799.928	11.372	4.617	0.310	12.274
1900.000	0.363	258.839	20.873	1899.927	11.429	4.358	0.401	12.231
2000.000	0.300	247.452	18.612	1999.925	11.227	3.781	0.090	11.846
2100.000	0.662	211.839	18.158	2099.922	10.747	3.525	0.435	11.310
2200.000	1.043	212.906	15.937	2199.913	9.699	2.770	0.360	10.087
2300.000	0.882	206.672	13.277	2299.903	8.505	2.007	0.066	8.739

2400.000	1.219	213.918	10.270	2399.889	7.059	1.279	0.399	7.174
2500.000	0.765	216.943	1.902	2499.876	5.901	0.196	0.419	5.905
2600.000	0.884	219.815	351.422	2599.865	4.722	-0.712	0.106	4.776
2700.000	1.008	221.954	332.132	2699.850	3.376	-1.785	0.148	3.819
2800.000	0.793	221.642	306.196	2799.835	2.218	-3.031	0.207	3.756
2900.000	1.144	226.264	285.017	2899.823	1.088	-4.057	0.398	4.200
3000.000	0.933	238.158	270.605	2999.808	0.058	-5.446	0.181	5.447
3100.000	0.900	213.124	262.293	3099.796	-0.904	-6.677	0.389	6.737
3200.000	1.197	233.522	255.479	3199.780	-2.078	-8.021	0.496	8.286
3300.000	0.501	206.554	251.934	3299.768	-3.002	-9.204	0.678	9.681
3400.000	0.643	215.363	248.470	3399.762	-3.890	-9.861	0.117	10.600
3500.000	0.433	229.188	246.628	3499.756	-4.582	-10.602	0.196	11.549
3600.000	0.510	222.600	245.305	3599.753	-5.115	-11.123	0.100	12.242
3700.000	0.480	242.710	244.201	3699.748	-5.736	-11.865	0.178	13.179
3800.000	0.489	221.407	243.479	3799.745	-6.207	-12.439	0.164	13.901
3900.000	0.675	232.365	242.157	3899.740	-6.920	-13.102	0.251	14.817
4000.000	0.489	187.086	241.237	3999.737	-7.467	-13.603	0.358	15.518
4100.000	0.751	176.030	237.011	4099.728	-8.750	-13.479	0.337	16.070
4200.000	0.850	165.295	232.539	4199.717	-10.157	-13.255	0.208	16.699
4300.000	1.100	165.453	227.329	4299.703	-11.738	-12.733	0.177	17.318
4400.000	1.019	153.243	222.328	4399.686	-13.548	-12.340	0.244	18.326
4500.000	1.080	162.081	217.931	4499.671	-15.183	-11.833	0.134	19.250
4600.000	1.088	166.168	213.331	4599.651	-17.060	-11.220	0.142	20.419
4700.000	1.035	155.074	209.748	4699.635	-18.750	-10.716	0.179	21.596
4800.000	1.055	159.042	206.013	4799.618	-20.433	-9.972	0.081	22.737
4900.000	0.581	154.899	203.468	4899.608	-21.757	-9.446	0.552	23.719
5000.000	0.718	155.476	201.161	4999.600	-22.863	-8.850	0.107	24.516
5100.000	0.390	160.611	199.771	5099.594	-23.849	-8.572	0.240	25.343
5200.000	0.516	151.465	198.412	5199.591	-24.513	-8.160	0.103	25.835
5300.000	0.483	166.466	197.195	5299.587	-25.372	-7.852	0.162	26.559
5400.000	0.697	154.376	196.104	5399.583	-26.131	-7.544	0.322	27.198
5500.000	0.793	160.998	194.236	5499.573	-27.425	-6.958	0.201	28.294
5600.000	1.046	144.612	192.506	5599.564	-28.544	-6.331	0.341	29.238
5700.000	0.482	153.745	190.803	5699.554	-29.755	-5.678	0.477	30.292
5800.000	0.691	158.258	189.594	5799.549	-30.692	-5.188	0.112	31.127
5900.000	0.625	157.753	188.153	5899.541	-31.679	-4.539	0.074	32.003
6000.000	0.302	116.077	187.344	5999.538	-32.296	-4.162	0.352	32.563
6100.000	0.275	144.466	186.278	6099.535	-32.697	-3.597	0.175	32.894
6200.000	0.072	88.396	186.058	6199.535	-32.913	-3.493	0.267	33.098
6300.000	0.157	167.789	185.862	6299.534	-33.002	-3.388	0.158	33.175
6400.000	0.207	296.400	186.183	6399.533	-33.207	-3.598	0.334	33.401
6500.000	0.316	256.905	186.507	6499.532	-33.158	-3.782	0.211	33.373
6600.000	0.392	287.196	187.617	6599.530	-33.277	-4.450	0.304	33.573
6700.000	0.249	224.907	188.367	6699.528	-33.118	-4.871	0.368	33.475
6800.000	0.350	302.828	189.112	6799.527	-32.957	-5.286	0.353	33.378
6900.000	0.146	218.588	189.338	6899.526	-32.864	-5.404	0.395	33.306
7000.000	0.273	281.185	189.948	6999.525	-32.977	-5.784	0.215	33.481
7100.000	0.130	175.070	190.220	7099.525	-32.857	-5.924	0.322	33.386

