



Company: Noble Energy

Rig: Production/Core-Tech

API # 05-123-26586

Date: 3/31/14

Surveyor: Mark Simmons

VS: 0.000

Lat : 40.46102

Long: -104.503

Well: Larson A 25-6X

Location: Weld County, Colorado

North Reference: Grid

Convergence: East To True North

Declination: 8.35

Depth Reference: RKB = Ground Level

Elevation: 4632

Total Depth as Drilled: 7052

Lat & Long obtained by handheld GPS at wellhead

MS Gyro Survey Calculations

| Depth | Inc | AzG | N/-S | E/-W | TVD | DL | VS | CD | Cbrg |
|----------|--------|---------|----------|---------|----------|-------|----------|---------|---------|
| 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | **** | 0.000 | 0.000 | 0.000 |
| 100.000 | 0.421 | 348.507 | 0.360 | -0.073 | 99.999 | 0.421 | 0.360 | 0.368 | 348.507 |
| 200.000 | 0.434 | 346.634 | 1.089 | -0.234 | 199.996 | 0.019 | 1.089 | 1.114 | 347.870 |
| 300.000 | 0.410 | 337.726 | 1.789 | -0.457 | 299.994 | 0.070 | 1.789 | 1.846 | 345.662 |
| 400.000 | 0.362 | 348.056 | 2.428 | -0.658 | 399.991 | 0.084 | 2.428 | 2.516 | 344.839 |
| 500.000 | 0.403 | 357.218 | 3.089 | -0.740 | 499.989 | 0.074 | 3.089 | 3.176 | 346.519 |
| 600.000 | 0.286 | 353.043 | 3.687 | -0.788 | 599.987 | 0.120 | 3.687 | 3.770 | 347.942 |
| 700.000 | 0.341 | 331.946 | 4.197 | -0.958 | 699.986 | 0.127 | 4.197 | 4.305 | 347.147 |
| 800.000 | 0.728 | 289.345 | 4.670 | -1.697 | 799.982 | 0.530 | 4.670 | 4.969 | 340.028 |
| 900.000 | 0.945 | 211.632 | 4.178 | -2.729 | 899.974 | 1.063 | 4.178 | 4.991 | 326.848 |
| 1000.000 | 0.154 | 83.753 | 3.491 | -3.028 | 999.969 | 1.046 | 3.491 | 4.621 | 319.060 |
| 1100.000 | 0.172 | 85.034 | 3.519 | -2.745 | 1099.969 | 0.018 | 3.519 | 4.463 | 322.038 |
| 1200.000 | 0.057 | 218.490 | 3.492 | -2.627 | 1199.969 | 0.215 | 3.492 | 4.370 | 323.051 |
| 1300.000 | 0.329 | 126.299 | 3.283 | -2.427 | 1299.968 | 0.336 | 3.283 | 4.083 | 323.532 |
| 1400.000 | 2.851 | 145.033 | 1.075 | -0.770 | 1399.922 | 2.542 | 1.075 | 1.323 | 324.393 |
| 1500.000 | 5.075 | 144.939 | -4.584 | 3.197 | 1499.677 | 2.224 | -4.584 | 5.588 | 145.110 |
| 1600.000 | 6.606 | 143.261 | -12.814 | 9.178 | 1599.155 | 1.540 | -12.814 | 15.762 | 144.388 |
| 1700.000 | 8.091 | 149.757 | -23.504 | 16.164 | 1698.332 | 1.700 | -23.504 | 28.526 | 145.483 |
| 1800.000 | 10.793 | 147.229 | -37.459 | 24.778 | 1796.969 | 2.733 | -37.459 | 44.913 | 146.516 |
| 1900.000 | 11.851 | 147.780 | -54.020 | 35.322 | 1895.021 | 1.064 | -54.020 | 64.543 | 146.821 |
| 2000.000 | 12.849 | 142.618 | -71.544 | 47.548 | 1992.709 | 1.487 | -71.544 | 85.903 | 146.392 |
| 2100.000 | 14.259 | 143.072 | -90.225 | 61.699 | 2089.921 | 1.413 | -90.225 | 109.304 | 145.634 |
| 2200.000 | 14.853 | 143.804 | -110.413 | 76.667 | 2186.711 | 0.622 | -110.413 | 134.421 | 145.225 |
| 2300.000 | 14.993 | 143.898 | -131.207 | 91.858 | 2283.339 | 0.142 | -131.207 | 160.166 | 145.004 |
| 2400.000 | 15.086 | 144.603 | -152.267 | 107.017 | 2379.913 | 0.205 | -152.267 | 186.113 | 144.899 |
| 2500.000 | 14.564 | 141.419 | -172.704 | 122.397 | 2476.586 | 0.967 | -172.704 | 211.678 | 144.675 |
| 2600.000 | 14.671 | 142.156 | -192.533 | 138.006 | 2573.349 | 0.215 | -192.533 | 236.886 | 144.367 |
| 2700.000 | 14.550 | 147.533 | -213.132 | 152.519 | 2670.120 | 1.361 | -213.132 | 262.083 | 144.412 |
| 2800.000 | 15.080 | 143.723 | -234.218 | 166.960 | 2766.797 | 1.109 | -234.218 | 287.634 | 144.517 |
| 2900.000 | 14.731 | 142.816 | -254.834 | 182.341 | 2863.432 | 0.419 | -254.834 | 313.350 | 144.415 |
| 3000.000 | 14.846 | 138.640 | -274.580 | 198.491 | 2960.123 | 1.072 | -274.580 | 338.811 | 144.137 |
| 3100.000 | 14.600 | 144.600 | -294.470 | 214.259 | 3056.845 | 1.534 | -294.470 | 364.169 | 143.960 |
| 3200.000 | 13.443 | 143.543 | -314.093 | 228.467 | 3153.864 | 1.185 | -314.093 | 388.396 | 143.968 |
| 3300.000 | 13.721 | 145.454 | -333.211 | 242.099 | 3251.068 | 0.528 | -333.211 | 411.876 | 143.999 |
| 3400.000 | 13.842 | 144.302 | -352.694 | 255.805 | 3348.189 | 0.300 | -352.694 | 435.694 | 144.047 |

| | | | | | | | | | |
|----------|--------|---------|----------|---------|----------|-------|----------|---------|---------|
| 3500.000 | 14.674 | 144.154 | -372.676 | 270.203 | 3445.108 | 0.833 | -372.676 | 460.323 | 144.057 |
| 3600.000 | 15.702 | 141.950 | -393.600 | 285.961 | 3541.614 | 1.179 | -393.600 | 486.512 | 144.001 |
| 3700.000 | 16.358 | 146.152 | -415.952 | 302.146 | 3637.729 | 1.333 | -415.952 | 514.109 | 144.006 |
| 3800.000 | 16.279 | 145.209 | -439.158 | 317.987 | 3733.700 | 0.277 | -439.158 | 542.195 | 144.092 |
| 3900.000 | 15.275 | 145.657 | -461.545 | 333.416 | 3829.932 | 1.012 | -461.545 | 569.377 | 144.156 |
| 4000.000 | 13.401 | 143.789 | -481.773 | 347.694 | 3926.813 | 1.930 | -481.773 | 594.135 | 144.182 |
| 4100.000 | 13.163 | 144.138 | -500.351 | 361.211 | 4024.138 | 0.251 | -500.351 | 617.110 | 144.174 |
| 4200.000 | 12.930 | 140.988 | -518.272 | 374.925 | 4121.558 | 0.748 | -518.272 | 639.668 | 144.118 |
| 4300.000 | 11.519 | 140.559 | -534.678 | 388.311 | 4219.288 | 1.414 | -534.678 | 660.807 | 144.011 |
| 4400.000 | 11.517 | 138.717 | -549.891 | 401.241 | 4317.274 | 0.368 | -549.891 | 680.716 | 143.883 |
| 4500.000 | 11.948 | 141.768 | -565.523 | 414.233 | 4415.186 | 0.755 | -565.523 | 701.004 | 143.778 |
| 4600.000 | 11.830 | 140.999 | -581.620 | 427.090 | 4513.041 | 0.197 | -581.620 | 721.587 | 143.710 |
| 4700.000 | 12.087 | 143.965 | -598.053 | 439.700 | 4610.872 | 0.666 | -598.053 | 742.296 | 143.676 |
| 4800.000 | 12.542 | 149.274 | -615.853 | 451.407 | 4708.574 | 1.220 | -615.853 | 763.573 | 143.759 |
| 4900.000 | 12.670 | 141.952 | -633.824 | 463.714 | 4806.169 | 1.602 | -633.824 | 785.343 | 143.810 |
| 5000.000 | 13.624 | 146.359 | -652.266 | 476.999 | 4903.550 | 1.383 | -652.266 | 808.071 | 143.822 |
| 5100.000 | 12.505 | 147.248 | -671.176 | 489.380 | 5000.960 | 1.137 | -671.176 | 830.645 | 143.903 |
| 5200.000 | 8.934 | 146.056 | -686.728 | 499.576 | 5099.199 | 3.577 | -686.728 | 849.218 | 143.965 |
| 5300.000 | 6.809 | 142.084 | -697.848 | 507.556 | 5198.252 | 2.193 | -697.848 | 862.905 | 143.971 |
| 5400.000 | 5.506 | 137.771 | -706.077 | 514.423 | 5297.674 | 1.382 | -706.077 | 873.599 | 143.924 |
| 5500.000 | 4.033 | 134.947 | -712.114 | 520.137 | 5397.325 | 1.491 | -712.114 | 881.844 | 143.855 |
| 5600.000 | 3.686 | 131.785 | -716.740 | 525.023 | 5497.098 | 0.407 | -716.740 | 888.462 | 143.777 |
| 5700.000 | 2.868 | 134.570 | -720.638 | 529.202 | 5596.934 | 0.833 | -720.638 | 894.077 | 143.708 |
| 5800.000 | 2.355 | 131.389 | -723.752 | 532.526 | 5696.829 | 0.533 | -723.752 | 898.555 | 143.655 |
| 5900.000 | 2.100 | 135.209 | -726.411 | 535.358 | 5796.754 | 0.295 | -726.411 | 902.375 | 143.610 |
| 6000.000 | 1.665 | 122.986 | -728.502 | 537.867 | 5896.700 | 0.590 | -728.502 | 905.547 | 143.561 |
| 6100.000 | 1.336 | 123.231 | -729.932 | 540.061 | 5996.666 | 0.329 | -729.932 | 908.001 | 143.503 |
| 6200.000 | 1.168 | 133.275 | -731.269 | 541.778 | 6096.642 | 0.276 | -731.269 | 910.097 | 143.466 |
| 6300.000 | 1.407 | 111.323 | -732.414 | 543.664 | 6196.617 | 0.544 | -732.414 | 912.141 | 143.414 |
| 6400.000 | 1.791 | 105.205 | -733.270 | 546.315 | 6296.578 | 0.420 | -733.270 | 914.410 | 143.312 |
| 6500.000 | 1.942 | 105.723 | -734.140 | 549.455 | 6396.525 | 0.152 | -734.140 | 916.985 | 143.188 |
| 6600.000 | 2.316 | 99.388 | -734.928 | 553.080 | 6496.456 | 0.442 | -734.928 | 919.792 | 143.036 |
| 6700.000 | 2.469 | 103.199 | -735.750 | 557.171 | 6596.369 | 0.220 | -735.750 | 922.912 | 142.864 |
| 6800.000 | 2.598 | 106.148 | -736.872 | 561.444 | 6696.271 | 0.183 | -736.872 | 926.391 | 142.695 |