

Noble Energy (Rockies)

Garfield County, CO

Sec. 35-T7S-R95W (SGV 35L PAD)

Rulison Federal 35-14C - B10

Wellbore #1

Plan: Plan #1

Sperry Drilling Services

Proposal Report

12 November, 2009

Well Coordinates: 577,307.60 N, 1,301,575.20 E (39° 23' 32.70" N, 107° 58' 17.50" W)

Ground Level: 9,203.00 ft

Local Coordinate Origin: Centered on Well Rulison Federal 35-14C - Slot B10

Viewing Datum: RKB - 24' @ 9227.00ft

TVDs to System: N

North Reference: Grid

Unit System: API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

HALLIBURTON

Plan Report for Rulison Federal 35-14C - Plan #1

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | Toolface Azimuth (°) |
|---------------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|----------------------------|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.00 | 1.67 | 178.00 | 99.99 | -1.45 | 0.05 | 1.45 | 1.67 | 1.67 | 0.00 | 178.00 |
| 200.00 | 3.33 | 178.00 | 199.89 | -5.81 | 0.20 | 5.82 | 1.67 | 1.67 | 0.00 | 0.00 |
| 300.00 | 5.00 | 178.00 | 299.62 | -13.07 | 0.46 | 13.08 | 1.67 | 1.67 | 0.00 | 0.00 |
| Kickoff at 300.00ft | | | | | | | | | | |
| 400.00 | 6.46 | 178.00 | 399.12 | -23.05 | 0.80 | 23.06 | 1.46 | 1.46 | 0.00 | 0.00 |
| 500.00 | 7.91 | 178.00 | 498.33 | -35.55 | 1.24 | 35.57 | 1.46 | 1.46 | 0.00 | 0.00 |
| 600.00 | 9.37 | 178.00 | 597.19 | -50.56 | 1.77 | 50.59 | 1.46 | 1.46 | 0.00 | 0.00 |
| 620.00 | 9.66 | 178.00 | 616.92 | -53.86 | 1.88 | 53.89 | 1.46 | 1.46 | 0.00 | 0.00 |
| Build Rate = 2.00°/100ft | | | | | | | | | | |
| 700.00 | 10.82 | 178.00 | 695.64 | -68.08 | 2.38 | 68.11 | 1.46 | 1.46 | 0.00 | 0.00 |
| 800.00 | 12.28 | 178.00 | 793.61 | -88.09 | 3.08 | 88.14 | 1.46 | 1.46 | 0.00 | 0.00 |
| 900.00 | 13.74 | 178.00 | 891.04 | -110.58 | 3.86 | 110.64 | 1.46 | 1.46 | 0.00 | 0.00 |
| 952.54 | 14.50 | 178.00 | 942.00 | -123.39 | 4.31 | 123.46 | 1.46 | 1.46 | 0.00 | 0.00 |
| End Build at 952.54ft | | | | | | | | | | |
| 1,000.00 | 14.50 | 178.00 | 987.95 | -135.26 | 4.72 | 135.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,100.00 | 14.50 | 178.00 | 1,084.76 | -160.29 | 5.60 | 160.38 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,200.00 | 14.50 | 178.00 | 1,181.58 | -185.31 | 6.47 | 185.42 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,300.00 | 14.50 | 178.00 | 1,278.39 | -210.33 | 7.34 | 210.45 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,400.00 | 14.50 | 178.00 | 1,375.21 | -235.35 | 8.22 | 235.49 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,500.00 | 14.50 | 178.00 | 1,472.02 | -260.38 | 9.09 | 260.53 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 5/8" Casing Pt. | | | | | | | | | | |
| 1,600.00 | 14.50 | 178.00 | 1,568.83 | -285.40 | 9.97 | 285.56 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,700.00 | 14.50 | 178.00 | 1,665.65 | -310.42 | 10.84 | 310.60 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 14.50 | 178.00 | 1,762.46 | -335.44 | 11.71 | 335.64 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 14.50 | 178.00 | 1,859.28 | -360.47 | 12.59 | 360.68 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 14.50 | 178.00 | 1,956.09 | -385.49 | 13.46 | 385.71 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 14.50 | 178.00 | 2,052.91 | -410.51 | 14.34 | 410.75 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 14.50 | 178.00 | 2,149.72 | -435.54 | 15.21 | 435.79 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 14.50 | 178.00 | 2,246.54 | -460.56 | 16.08 | 460.83 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 14.50 | 178.00 | 2,343.35 | -485.58 | 16.96 | 485.86 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 14.50 | 178.00 | 2,440.17 | -510.60 | 17.83 | 510.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 14.50 | 178.00 | 2,536.98 | -535.63 | 18.70 | 535.94 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 14.50 | 178.00 | 2,633.80 | -560.65 | 19.58 | 560.97 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 14.50 | 178.00 | 2,730.61 | -585.67 | 20.45 | 586.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 14.50 | 178.00 | 2,827.43 | -610.70 | 21.33 | 611.05 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 14.50 | 178.00 | 2,924.24 | -635.72 | 22.20 | 636.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 14.50 | 178.00 | 3,021.06 | -660.74 | 23.07 | 661.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 14.50 | 178.00 | 3,117.87 | -685.76 | 23.95 | 686.16 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 14.50 | 178.00 | 3,214.69 | -710.79 | 24.82 | 711.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,400.00 | 14.50 | 178.00 | 3,311.50 | -735.81 | 25.70 | 736.23 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 14.50 | 178.00 | 3,408.32 | -760.83 | 26.57 | 761.27 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 14.50 | 178.00 | 3,505.13 | -785.85 | 27.44 | 786.31 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14.50 Inclination | | | | | | | | | | |
| 3,700.00 | 14.50 | 178.00 | 3,601.94 | -810.88 | 28.32 | 811.35 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 14.50 | 178.00 | 3,698.76 | -835.90 | 29.19 | 836.38 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 14.50 | 178.00 | 3,795.57 | -860.92 | 30.06 | 861.42 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 14.50 | 178.00 | 3,892.39 | -885.95 | 30.94 | 886.46 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 14.50 | 178.00 | 3,989.20 | -910.97 | 31.81 | 911.50 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 14.50 | 178.00 | 4,086.02 | -935.99 | 32.69 | 936.53 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 14.50 | 178.00 | 4,182.83 | -961.01 | 33.56 | 961.57 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 14.50 | 178.00 | 4,279.65 | -986.04 | 34.43 | 986.61 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 14.50 | 178.00 | 4,376.46 | -1,011.06 | 35.31 | 1,011.64 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 14.50 | 178.00 | 4,473.28 | -1,036.08 | 36.18 | 1,036.68 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,700.00 | 14.50 | 178.00 | 4,570.09 | -1,061.10 | 37.05 | 1,061.72 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 14.50 | 178.00 | 4,666.91 | -1,086.13 | 37.93 | 1,086.76 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 14.50 | 178.00 | 4,763.72 | -1,111.15 | 38.80 | 1,111.79 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 14.50 | 178.00 | 4,860.54 | -1,136.17 | 39.68 | 1,136.83 | 0.00 | 0.00 | 0.00 | 0.00 |

Plan Report for Rulison Federal 35-14C - Plan #1

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | Toolface Azimuth (°) |
|---|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|----------------------------|
| 5,100.00 | 14.50 | 178.00 | 4,957.35 | -1,161.20 | 40.55 | 1,161.87 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 14.50 | 178.00 | 5,054.17 | -1,186.22 | 41.42 | 1,186.90 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 14.50 | 178.00 | 5,150.98 | -1,211.24 | 42.30 | 1,211.94 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 14.50 | 178.00 | 5,247.80 | -1,236.26 | 43.17 | 1,236.98 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 14.50 | 178.00 | 5,344.61 | -1,261.29 | 44.05 | 1,262.02 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 14.50 | 178.00 | 5,441.43 | -1,286.31 | 44.92 | 1,287.05 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 14.50 | 178.00 | 5,538.24 | -1,311.33 | 45.79 | 1,312.09 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 14.50 | 178.00 | 5,635.05 | -1,336.35 | 46.67 | 1,337.13 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 14.50 | 178.00 | 5,731.87 | -1,361.38 | 47.54 | 1,362.17 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 14.50 | 178.00 | 5,828.68 | -1,386.40 | 48.41 | 1,387.20 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 14.50 | 178.00 | 5,925.50 | -1,411.42 | 49.29 | 1,412.24 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6,166.11 | 14.50 | 178.00 | 5,989.50 | -1,427.97 | 49.87 | 1,428.79 | 0.00 | 0.00 | 0.00 | 0.00 |
| Begin Drop at 6166.11ft | | | | | | | | | | |
| 6,200.00 | 13.99 | 174.85 | 6,022.35 | -1,436.29 | 50.38 | 1,437.13 | 2.73 | -1.50 | -9.28 | -124.85 |
| 6,300.00 | 12.49 | 165.57 | 6,119.69 | -1,458.84 | 54.24 | 1,459.77 | 2.60 | -1.50 | -9.28 | -129.71 |
| 6,400.00 | 10.99 | 156.29 | 6,217.60 | -1,478.05 | 60.84 | 1,479.16 | 2.41 | -1.50 | -9.28 | -132.99 |
| 6,500.00 | 9.48 | 147.01 | 6,316.00 | -1,493.69 | 69.24 | 1,495.02 | 2.23 | -1.50 | -9.28 | -136.83 |
| 6,600.00 | 7.98 | 137.73 | 6,414.84 | -1,505.72 | 78.47 | 1,507.30 | 2.06 | -1.50 | -9.28 | -141.35 |
| 6,700.00 | 6.48 | 128.45 | 6,514.04 | -1,514.34 | 87.63 | 1,516.16 | 1.90 | -1.50 | -9.28 | -146.67 |
| 6,800.00 | 4.98 | 119.17 | 6,613.54 | -1,519.96 | 95.84 | 1,522.00 | 1.76 | -1.50 | -9.28 | -152.90 |
| Drop Rate = 1.50°/100ft | | | | | | | | | | |
| 6,900.00 | 3.48 | 109.89 | 6,713.26 | -1,523.00 | 102.58 | 1,525.22 | 1.65 | -1.50 | -9.28 | -160.10 |
| 7,000.00 | 1.97 | 100.60 | 6,813.15 | -1,524.29 | 107.15 | 1,526.63 | 1.56 | -1.50 | -9.28 | -168.23 |
| 7,100.00 | 0.47 | 91.32 | 6,913.12 | -1,524.54 | 109.27 | 1,526.94 | 1.51 | -1.50 | -9.28 | -177.11 |
| 7,131.39 | 0.00 | 88.41 | 6,946.00 | -1,515.18 | 91.70 | 1,517.11 | 1.50 | -1.50 | 0.00 | -180.00 |
| End Drop at 7131.39ft - Williams Fork - Rulison Federal 35-14C Plan #1 Driller's Tgt | | | | | | | | | | |
| 7,131.42 | 0.00 | 243.44 | 6,946.03 | -1,515.18 | 91.70 | 1,517.11 | 0.00 | 0.00 | 0.00 | 243.44 |
| Rulison Federal 35-14C Plan #1 Zone Tgt | | | | | | | | | | |
| 7,200.00 | 0.06 | 243.44 | 7,014.61 | -1,515.20 | 91.67 | 1,517.13 | 0.09 | 0.09 | 0.00 | 243.44 |
| 7,300.00 | 0.15 | 243.44 | 7,114.61 | -1,515.28 | 91.50 | 1,517.21 | 0.09 | 0.09 | 0.00 | 0.00 |
| 7,400.00 | 0.24 | 243.44 | 7,214.61 | -1,515.44 | 91.19 | 1,517.35 | 0.09 | 0.09 | 0.00 | 0.00 |
| 7,500.00 | 0.33 | 243.44 | 7,314.61 | -1,515.66 | 90.74 | 1,517.56 | 0.09 | 0.09 | 0.00 | 0.00 |
| 7,600.00 | 0.42 | 243.44 | 7,414.61 | -1,515.96 | 90.16 | 1,517.84 | 0.09 | 0.09 | 0.00 | 0.00 |
| 7,700.00 | 0.51 | 243.44 | 7,514.61 | -1,516.32 | 89.43 | 1,518.18 | 0.09 | 0.09 | 0.00 | 0.00 |
| 7,800.00 | 0.60 | 243.44 | 7,614.60 | -1,516.75 | 88.56 | 1,518.60 | 0.09 | 0.09 | 0.00 | 0.00 |
| 7,900.00 | 0.69 | 243.44 | 7,714.59 | -1,517.26 | 87.55 | 1,519.07 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,000.00 | 0.78 | 243.44 | 7,814.59 | -1,517.83 | 86.40 | 1,519.62 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,100.00 | 0.87 | 243.44 | 7,914.58 | -1,518.48 | 85.11 | 1,520.23 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,200.00 | 0.96 | 243.44 | 8,014.56 | -1,519.19 | 83.68 | 1,520.90 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,220.44 | 0.98 | 243.44 | 8,035.00 | -1,519.35 | 83.37 | 1,521.05 | 0.09 | 0.09 | 0.00 | 0.00 |
| Top of Gas | | | | | | | | | | |
| 8,300.00 | 1.05 | 243.44 | 8,114.55 | -1,519.98 | 82.11 | 1,521.65 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,400.00 | 1.14 | 243.44 | 8,214.53 | -1,520.84 | 80.39 | 1,522.45 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,500.00 | 1.23 | 243.44 | 8,314.51 | -1,521.76 | 78.54 | 1,523.33 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,600.00 | 1.32 | 243.44 | 8,414.48 | -1,522.76 | 76.55 | 1,524.27 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,700.00 | 1.41 | 243.44 | 8,514.45 | -1,523.82 | 74.41 | 1,525.28 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,800.00 | 1.50 | 243.44 | 8,614.42 | -1,524.96 | 72.14 | 1,526.36 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,900.00 | 1.59 | 243.44 | 8,714.39 | -1,526.17 | 69.73 | 1,527.50 | 0.09 | 0.09 | 0.00 | 0.00 |
| 8,997.77 | 1.68 | 243.44 | 8,812.12 | -1,527.42 | 67.23 | 1,528.68 | 0.09 | 0.09 | 0.00 | 0.00 |
| 9,000.00 | 1.68 | 243.44 | 8,814.35 | -1,527.45 | 67.17 | 1,528.70 | 0.09 | -0.09 | 0.00 | 180.00 |
| 9,100.00 | 1.59 | 243.44 | 8,914.30 | -1,528.72 | 64.62 | 1,529.91 | 0.09 | -0.09 | 0.00 | 180.00 |
| 9,200.00 | 1.51 | 243.44 | 9,014.27 | -1,529.93 | 62.20 | 1,531.05 | 0.09 | -0.09 | 0.00 | 180.00 |
| 9,300.00 | 1.42 | 243.44 | 9,114.24 | -1,531.07 | 59.92 | 1,532.13 | 0.09 | -0.09 | 0.00 | 180.00 |
| 9,400.00 | 1.33 | 243.44 | 9,214.21 | -1,532.14 | 57.77 | 1,533.15 | 0.09 | -0.09 | 0.00 | 180.00 |
| 9,500.00 | 1.25 | 243.44 | 9,314.18 | -1,533.15 | 55.76 | 1,534.10 | 0.09 | -0.09 | 0.00 | 180.00 |
| 9,536.83 | 1.21 | 243.44 | 9,351.00 | -1,533.50 | 55.05 | 1,534.43 | 0.09 | -0.09 | 0.00 | -180.00 |
| Cameo | | | | | | | | | | |
| 9,600.00 | 1.16 | 243.44 | 9,414.16 | -1,534.09 | 53.88 | 1,534.99 | 0.09 | -0.09 | 0.00 | 180.00 |
| 9,700.00 | 1.07 | 243.44 | 9,514.14 | -1,534.96 | 52.14 | 1,535.81 | 0.09 | -0.09 | 0.00 | 180.00 |

Plan Report for Rulison Federal 35-14C - Plan #1

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | Toolface Azimuth (°) |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|----------------------|
| 9,800.00 | 0.99 | 243.44 | 9,614.12 | -1,535.77 | 50.53 | 1,536.57 | 0.09 | -0.09 | 0.00 | 180.00 |
| 9,900.00 | 0.90 | 243.44 | 9,714.11 | -1,536.50 | 49.05 | 1,537.27 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,000.00 | 0.82 | 243.44 | 9,814.10 | -1,537.17 | 47.71 | 1,537.90 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,017.90 | 0.80 | 243.44 | 9,832.00 | -1,537.29 | 47.49 | 1,538.01 | 0.09 | -0.09 | 0.00 | 180.00 |
| Rollins | | | | | | | | | | |
| 10,100.00 | 0.73 | 243.44 | 9,914.09 | -1,537.78 | 46.51 | 1,538.47 | 0.09 | -0.09 | 0.00 | -180.00 |
| 10,200.00 | 0.64 | 243.44 | 10,014.08 | -1,538.31 | 45.44 | 1,538.98 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,300.00 | 0.56 | 243.44 | 10,114.08 | -1,538.78 | 44.50 | 1,539.42 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,323.92 | 0.54 | 243.44 | 10,138.00 | -1,538.88 | 44.30 | 1,539.52 | 0.09 | -0.09 | 0.00 | 180.00 |
| Cozzette | | | | | | | | | | |
| 10,400.00 | 0.47 | 243.44 | 10,214.07 | -1,539.18 | 43.70 | 1,539.80 | 0.09 | -0.09 | 0.00 | -180.00 |
| 10,500.00 | 0.38 | 243.44 | 10,314.07 | -1,539.51 | 43.04 | 1,540.11 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,562.93 | 0.33 | 243.44 | 10,377.00 | -1,539.69 | 42.68 | 1,540.28 | 0.09 | -0.09 | 0.00 | -180.00 |
| Corcora | | | | | | | | | | |
| 10,600.00 | 0.30 | 243.44 | 10,414.07 | -1,539.78 | 42.50 | 1,540.36 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,694.93 | 0.22 | 243.44 | 10,509.00 | -1,539.97 | 42.12 | 1,540.54 | 0.09 | -0.09 | 0.00 | -180.00 |
| Mancos | | | | | | | | | | |
| 10,700.00 | 0.21 | 243.44 | 10,514.07 | -1,539.98 | 42.11 | 1,540.55 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,800.00 | 0.13 | 243.44 | 10,614.07 | -1,540.11 | 41.84 | 1,540.68 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,900.00 | 0.04 | 243.44 | 10,714.07 | -1,540.17 | 41.72 | 1,540.74 | 0.09 | -0.09 | 0.00 | 180.00 |
| 10,944.93 | 0.00 | 0.00 | 10,759.00 | -1,540.18 | 41.70 | 1,540.74 | 0.09 | -0.09 | 259.43 | 180.00 |
| Total Depth = 10944.93ft - Rulison Federal 35-14C Plan #1 BH Tgt | | | | | | | | | | |

Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates +N/-S (ft) | +E/-W (ft) | Comment |
|---------------------|---------------------|------------------------------|------------|--------------------------|
| 300.00 | 299.62 | -13.07 | 0.46 | Kickoff at 300.00ft |
| 620.00 | 616.92 | -53.86 | 1.88 | Build Rate = 2.00°/100ft |
| 952.54 | 942.00 | -123.39 | 4.31 | End Build at 952.54ft |
| 3,600.00 | 3,505.13 | -785.85 | 27.44 | 14.50 Inclination |
| 6,166.11 | 5,989.50 | -1,427.97 | 49.87 | Begin Drop at 6166.11ft |
| 6,800.00 | 6,613.54 | -1,519.96 | 95.84 | Drop Rate = 1.50°/100ft |
| 7,131.39 | 6,946.00 | -1,515.18 | 91.70 | End Drop at 7131.39ft |
| 10,944.93 | 10,759.00 | -1,540.18 | 41.70 | Total Depth = 10944.93ft |

Vertical Section Information

| Angle Type | Target | Azimuth (°) | Origin Type | Origin +N/-S (ft) | +E/-W (ft) | Start TVD (ft) |
|------------|---------------------------------------|-------------|-------------|-------------------|------------|----------------|
| Target | Rulison Federal 35-14C Plan #1 BH Tgt | 178.45 | Slot | 0.00 | 0.00 | 0.00 |

Survey tool program

| From (ft) | To (ft) | Survey/Plan | Survey Tool |
|-----------|-----------|-------------|-------------|
| 0.00 | 10,944.93 | Plan #1 | MWD |

Casing Details

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|-------------------|---------------------|-------------------|
| 1,500.00 | 1,472.02 | 8 5/8" Casing Pt. | 8-5/8 | 11 |

Plan Report for Rulison Federal 35-14C - Plan #1

Formation Details

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---------------------------|---------------------------|---------------|-----------|------------|-------------------------|
| 7,131.39 | 6,946.00 | Williams Fork | | 0.00 | |
| 8,220.44 | 8,035.00 | Top of Gas | | 0.00 | |
| 9,536.83 | 9,351.00 | Cameo | | 0.00 | |
| 10,017.90 | 9,832.00 | Rollins | | 0.00 | |
| 10,323.92 | 10,138.00 | Cozzette | | 0.00 | |
| 10,562.93 | 10,377.00 | Corcora | | 0.00 | |
| 10,694.93 | 10,509.00 | Mancos | | 0.00 | |

Targets associated with this wellbore

| Target Name | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Shape |
|---|-------------|---------------|---------------|-----------|
| Rulison Federal 35-14C Plan #1 Zone Tgt | 6,946.00 | -1,540.18 | 41.70 | Rectangle |
| Rulison Federal 35-14C Plan #1 Driller's Tgt | 6,946.00 | -1,515.18 | 91.70 | Rectangle |
| Rulison Federal 35-14C Plan #1 BH Tgt | 10,759.00 | -1,540.18 | 41.70 | Point |

North Reference Sheet for Sec. 35-T7S-R95W (SGV 35L PAD) - Rulison Federal 35-14C - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to RKB - 24' @ 9227.00ft. Northing and Easting are relative to Rulison Federal 35-14C - Slot B10

Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is -105.50°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:39° 45' 0.000 N°

False Easting: 2,000,000.00ft, False Northing: 0.00ft, Scale Reduction: 0.99994881

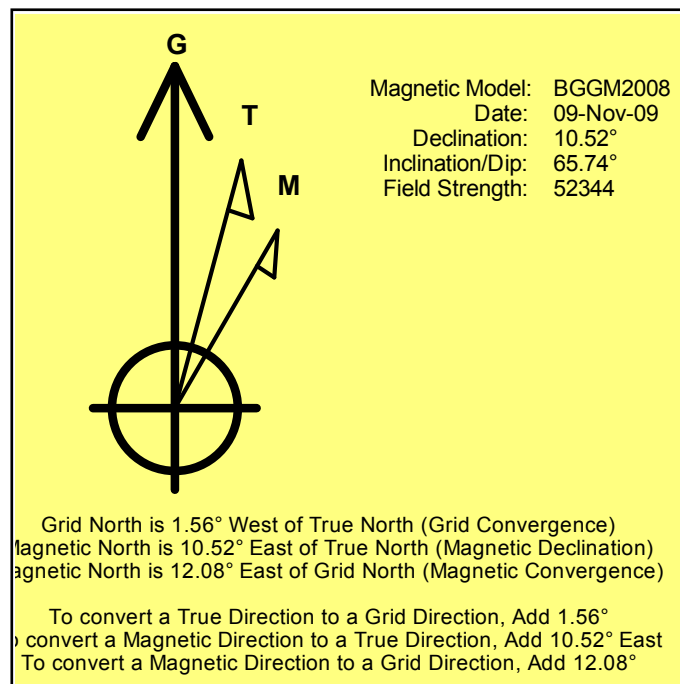
Grid Coordinates of Well: 577,307.60 ft N, 1,301,575.20 ft E

Geographical Coordinates of Well: 39° 23' 32.70" N, 107° 58' 17.50" W

Grid Convergence at Surface is: -1.56°

Based upon Minimum Curvature type calculations, at a Measured Depth of 10,944.93ft
the Bottom Hole Displacement is 1,540.74ft in the Direction of 178.45° (Grid).

Magnetic Convergence at surface is: -12.08° (9 November 2009, , BGGM2008)



Project: Garfield County, CO
Site: Sec. 35-T7S-R95W (SGV 35L PAD)
Well: Rulison Federal 35-14B
Wellbore: Wellbore #1
Plan: Plan #1

Noble Energy (Rockies)

HALLIBURTON

SECTION DETAILS

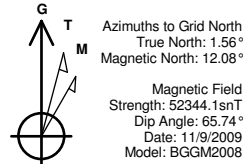
| MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | |
|----------|-------|--------|----------|----------|-------|------|--------|---------|--|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 225.00 | 0.00 | 0.00 | 225.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 780.68 | 11.11 | 175.99 | 777.20 | -53.59 | 3.76 | 2.00 | 175.99 | 53.68 | |
| 6327.22 | 11.11 | 175.99 | 6219.73 | -1120.10 | 78.49 | 0.00 | 0.00 | 1121.84 | |
| 7068.13 | 0.00 | 360.00 | 6956.00 | -1191.56 | 83.50 | 1.50 | 180.00 | 1193.41 | Rulison Federal 35-14B Plan #1 Driller's Tgt |
| 8934.67 | 1.68 | 243.43 | 8822.27 | -1203.80 | 59.03 | 0.09 | 243.43 | 1204.97 | |
| 10881.68 | 0.00 | 360.00 | 10769.00 | -1216.56 | 33.50 | 0.09 | 180.00 | 1217.02 | Rulison Federal 35-14B Plan #1 BH Tgt |

WELLBORE TARGET DETAILS

| Name | TVD | +N/-S | +E/-W | Shape |
|--|----------|----------|-------|------------------------------------|
| Rulison Federal 35-14B Plan #1 Driller's Tgt | 6956.00 | -1191.56 | 83.50 | Rectangle (Sides: L25.00 W25.00) |
| Rulison Federal 35-14B Plan #1 Zone Tgt | 6956.00 | -1216.56 | 33.50 | Rectangle (Sides: L100.00 W200.00) |
| Rulison Federal 35-14B Plan #1 BH Tgt | 10769.00 | -1216.56 | 33.50 | Point |

WELL DETAILS: Rulison Federal 35-14B

| | | | | | | |
|---------------|-----------|----------|------------------|-----------|-------------------|-----|
| Ground Level: | 9203.00 | Latitude | 39° 23' 32.584 N | Longitude | 107° 58' 17.458 W | A11 |
| Northing | 577296.00 | Easting | 1301578.30 | | | |



FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|----------|----------|---------------|
| 6956.00 | 7068.13 | Williams Fork |
| 8045.00 | 8157.18 | Top of Gas |
| 9361.00 | 9473.57 | Cameo |
| 9842.00 | 9954.65 | Rollins |
| 10148.00 | 10260.67 | Cozzette |
| 10387.00 | 10499.67 | Corcora |
| 10519.00 | 10631.68 | Mancos |

