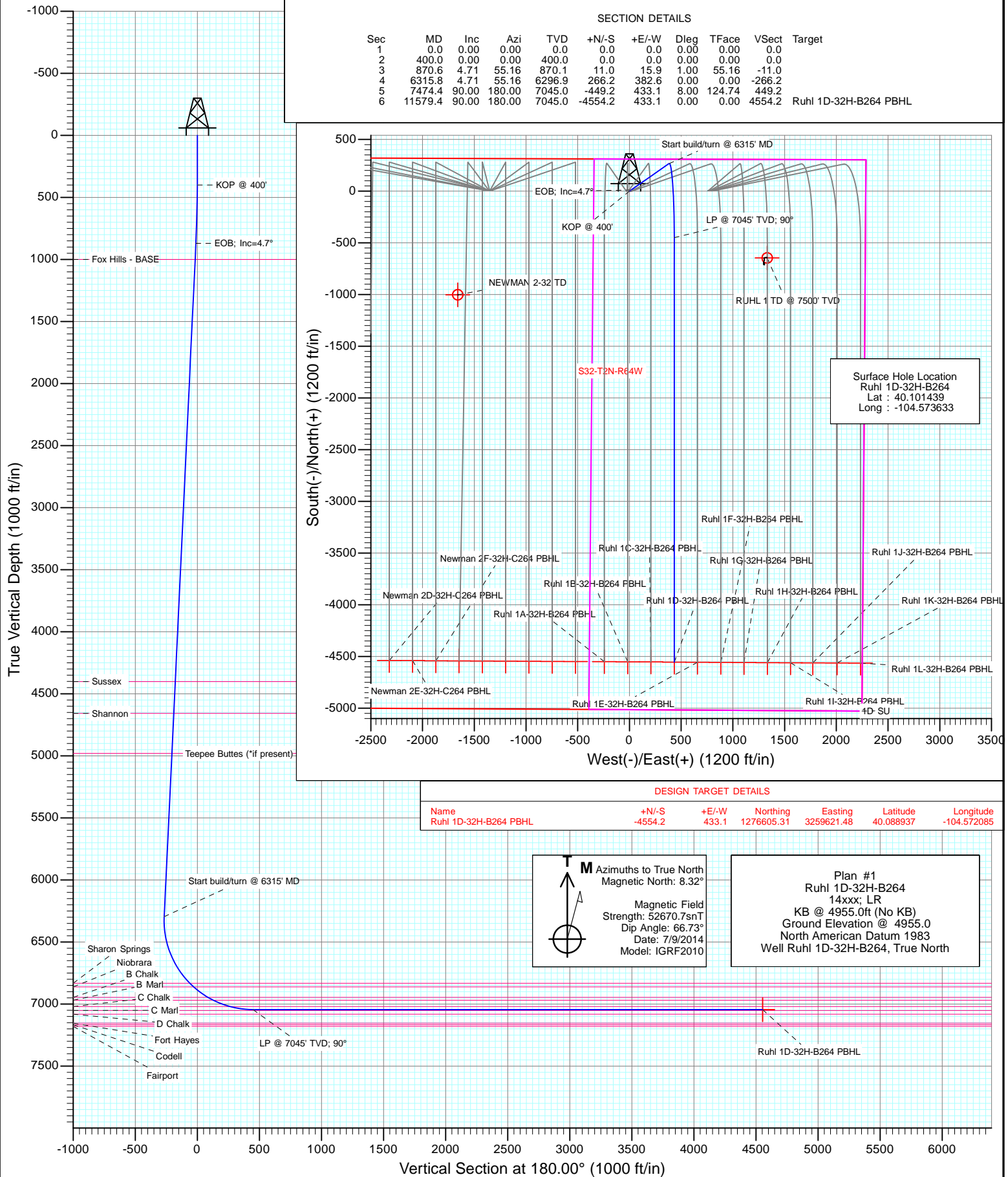




Project: DJ Wattenberg
Site: S32-T2N-R64W (Newman/Ruhl)
Well: Ruhl 1D-32H-B264
Wellbore: Hz
Design: Plan #1



Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|-----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | KB @ 4955.0ft (No KB) |
| Project: | DJ Wattenberg | MD Reference: | KB @ 4955.0ft (No KB) |
| Site: | S32-T2N-R64W (Newman/Ruhl) | North Reference: | True |
| Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | Plan #1 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | DJ Wattenberg | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | |
|-----------------------|----------|----------------------------|-----------------|-------------------|-------------|
| Site | | S32-T2N-R64W (Newman/Ruhl) | | | |
| Site Position: | | Northing: | 1,281,150.65 ft | Latitude: | 40.101468 |
| From: | Lat/Long | Easting: | 3,257,734.55 ft | Longitude: | -104.578660 |
| Position Uncertainty: | 0.0 ft | Slot Radius: | 13.200 in | Grid Convergence: | 0.60 ° |

| | | | | | | |
|----------------------|------------------|--------|---------------------|-----------------|---------------|-------------|
| Well | Ruhl 1D-32H-B264 | | | | | |
| Well Position | +N/-S | 0.0 ft | Northing: | 1,281,154.71 ft | Latitude: | 40.101439 |
| | +E/-W | 0.0 ft | Easting: | 3,259,140.82 ft | Longitude: | -104.573633 |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | 0.0 ft | Ground Level: | 4,955.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|----------------------------|--------------------------|--------------------------------|
| Wellbore | Hz | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 7/9/2014 | 8.32 | 66.73 | 52,671 |

| | | | | |
|--------------------------|----------------------------------|-----------------------|-----------------------|--------------------------|
| Design | Plan #1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 180.00 |

| Plan Sections | | | | | | | | | | |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|---------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 870.6 | 4.71 | 55.16 | 870.1 | 11.0 | 15.9 | 1.00 | 1.00 | 0.00 | 55.16 | |
| 6,315.8 | 4.71 | 55.16 | 6,296.9 | 266.2 | 382.6 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,474.4 | 90.00 | 180.00 | 7,045.0 | -449.2 | 433.1 | 8.00 | 7.36 | 10.77 | 124.74 | |
| 11,579.4 | 90.00 | 180.00 | 7,045.0 | -4,554.2 | 433.1 | 0.00 | 0.00 | 0.00 | 0.00 | Ruhl 1D-32H-B264 PI |

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|-----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | KB @ 4955.0ft (No KB) |
| Project: | DJ Wattenberg | MD Reference: | KB @ 4955.0ft (No KB) |
| Site: | S32-T2N-R64W (Newman/Ruhl) | North Reference: | True |
| Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | KOP @ 400' |
| 500.0 | 1.00 | 55.16 | 500.0 | 0.5 | 0.7 | -0.5 | 1.00 | 1.00 | |
| 600.0 | 2.00 | 55.16 | 600.0 | 2.0 | 2.9 | -2.0 | 1.00 | 1.00 | |
| 700.0 | 3.00 | 55.16 | 699.9 | 4.5 | 6.4 | -4.5 | 1.00 | 1.00 | |
| 800.0 | 4.00 | 55.16 | 799.7 | 8.0 | 11.5 | -8.0 | 1.00 | 1.00 | |
| 870.6 | 4.71 | 55.16 | 870.1 | 11.0 | 15.9 | -11.0 | 1.00 | 1.00 | EOB; Inc=4.7° |
| 900.0 | 4.71 | 55.16 | 899.4 | 12.4 | 17.8 | -12.4 | 0.00 | 0.00 | |
| 1,000.0 | 4.71 | 55.16 | 999.0 | 17.1 | 24.6 | -17.1 | 0.00 | 0.00 | |
| 1,001.0 | 4.71 | 55.16 | 1,000.0 | 17.1 | 24.6 | -17.1 | 0.00 | 0.00 | Fox Hills - BASE |
| 1,100.0 | 4.71 | 55.16 | 1,098.7 | 21.8 | 31.3 | -21.8 | 0.00 | 0.00 | |
| 1,200.0 | 4.71 | 55.16 | 1,198.4 | 26.5 | 38.0 | -26.5 | 0.00 | 0.00 | |
| 1,300.0 | 4.71 | 55.16 | 1,298.0 | 31.2 | 44.8 | -31.2 | 0.00 | 0.00 | |
| 1,400.0 | 4.71 | 55.16 | 1,397.7 | 35.8 | 51.5 | -35.8 | 0.00 | 0.00 | |
| 1,500.0 | 4.71 | 55.16 | 1,497.3 | 40.5 | 58.2 | -40.5 | 0.00 | 0.00 | |
| 1,600.0 | 4.71 | 55.16 | 1,597.0 | 45.2 | 65.0 | -45.2 | 0.00 | 0.00 | |
| 1,700.0 | 4.71 | 55.16 | 1,696.7 | 49.9 | 71.7 | -49.9 | 0.00 | 0.00 | |
| 1,800.0 | 4.71 | 55.16 | 1,796.3 | 54.6 | 78.4 | -54.6 | 0.00 | 0.00 | |
| 1,900.0 | 4.71 | 55.16 | 1,896.0 | 59.3 | 85.2 | -59.3 | 0.00 | 0.00 | |
| 2,000.0 | 4.71 | 55.16 | 1,995.7 | 64.0 | 91.9 | -64.0 | 0.00 | 0.00 | |
| 2,100.0 | 4.71 | 55.16 | 2,095.3 | 68.7 | 98.6 | -68.7 | 0.00 | 0.00 | |
| 2,200.0 | 4.71 | 55.16 | 2,195.0 | 73.3 | 105.4 | -73.3 | 0.00 | 0.00 | |
| 2,300.0 | 4.71 | 55.16 | 2,294.7 | 78.0 | 112.1 | -78.0 | 0.00 | 0.00 | |
| 2,400.0 | 4.71 | 55.16 | 2,394.3 | 82.7 | 118.9 | -82.7 | 0.00 | 0.00 | |
| 2,500.0 | 4.71 | 55.16 | 2,494.0 | 87.4 | 125.6 | -87.4 | 0.00 | 0.00 | |
| 2,600.0 | 4.71 | 55.16 | 2,593.6 | 92.1 | 132.3 | -92.1 | 0.00 | 0.00 | |
| 2,700.0 | 4.71 | 55.16 | 2,693.3 | 96.8 | 139.1 | -96.8 | 0.00 | 0.00 | |
| 2,800.0 | 4.71 | 55.16 | 2,793.0 | 101.5 | 145.8 | -101.5 | 0.00 | 0.00 | |
| 2,900.0 | 4.71 | 55.16 | 2,892.6 | 106.1 | 152.5 | -106.1 | 0.00 | 0.00 | |
| 3,000.0 | 4.71 | 55.16 | 2,992.3 | 110.8 | 159.3 | -110.8 | 0.00 | 0.00 | |
| 3,100.0 | 4.71 | 55.16 | 3,092.0 | 115.5 | 166.0 | -115.5 | 0.00 | 0.00 | |
| 3,200.0 | 4.71 | 55.16 | 3,191.6 | 120.2 | 172.7 | -120.2 | 0.00 | 0.00 | |
| 3,300.0 | 4.71 | 55.16 | 3,291.3 | 124.9 | 179.5 | -124.9 | 0.00 | 0.00 | |
| 3,400.0 | 4.71 | 55.16 | 3,390.9 | 129.6 | 186.2 | -129.6 | 0.00 | 0.00 | |
| 3,500.0 | 4.71 | 55.16 | 3,490.6 | 134.3 | 192.9 | -134.3 | 0.00 | 0.00 | |
| 3,600.0 | 4.71 | 55.16 | 3,590.3 | 139.0 | 199.7 | -139.0 | 0.00 | 0.00 | |
| 3,700.0 | 4.71 | 55.16 | 3,689.9 | 143.6 | 206.4 | -143.6 | 0.00 | 0.00 | |
| 3,800.0 | 4.71 | 55.16 | 3,789.6 | 148.3 | 213.1 | -148.3 | 0.00 | 0.00 | |
| 3,900.0 | 4.71 | 55.16 | 3,889.3 | 153.0 | 219.9 | -153.0 | 0.00 | 0.00 | |
| 4,000.0 | 4.71 | 55.16 | 3,988.9 | 157.7 | 226.6 | -157.7 | 0.00 | 0.00 | |
| 4,100.0 | 4.71 | 55.16 | 4,088.6 | 162.4 | 233.3 | -162.4 | 0.00 | 0.00 | |
| 4,200.0 | 4.71 | 55.16 | 4,188.2 | 167.1 | 240.1 | -167.1 | 0.00 | 0.00 | |
| 4,300.0 | 4.71 | 55.16 | 4,287.9 | 171.8 | 246.8 | -171.8 | 0.00 | 0.00 | |
| 4,400.0 | 4.71 | 55.16 | 4,387.6 | 176.4 | 253.5 | -176.4 | 0.00 | 0.00 | |
| 4,414.5 | 4.71 | 55.16 | 4,402.0 | 177.1 | 254.5 | -177.1 | 0.00 | 0.00 | Sussex |
| 4,500.0 | 4.71 | 55.16 | 4,487.2 | 181.1 | 260.3 | -181.1 | 0.00 | 0.00 | |
| 4,600.0 | 4.71 | 55.16 | 4,586.9 | 185.8 | 267.0 | -185.8 | 0.00 | 0.00 | |
| 4,671.3 | 4.71 | 55.16 | 4,658.0 | 189.2 | 271.8 | -189.2 | 0.00 | 0.00 | Shannon |
| 4,700.0 | 4.71 | 55.16 | 4,686.6 | 190.5 | 273.7 | -190.5 | 0.00 | 0.00 | |

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|-----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | KB @ 4955.0ft (No KB) |
| Project: | DJ Wattenberg | MD Reference: | KB @ 4955.0ft (No KB) |
| Site: | S32-T2N-R64W (Newman/Ruhl) | North Reference: | True |
| Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | Plan #1 | | |

Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------------|
| 4,800.0 | 4.71 | 55.16 | 4,786.2 | 195.2 | 280.5 | -195.2 | 0.00 | 0.00 | |
| 4,900.0 | 4.71 | 55.16 | 4,885.9 | 199.9 | 287.2 | -199.9 | 0.00 | 0.00 | |
| 4,994.4 | 4.71 | 55.16 | 4,980.0 | 204.3 | 293.6 | -204.3 | 0.00 | 0.00 | Teepee Buttes (*if present) |
| 5,000.0 | 4.71 | 55.16 | 4,985.5 | 204.6 | 293.9 | -204.6 | 0.00 | 0.00 | |
| 5,100.0 | 4.71 | 55.16 | 5,085.2 | 209.3 | 300.7 | -209.3 | 0.00 | 0.00 | |
| 5,200.0 | 4.71 | 55.16 | 5,184.9 | 213.9 | 307.4 | -213.9 | 0.00 | 0.00 | |
| 5,300.0 | 4.71 | 55.16 | 5,284.5 | 218.6 | 314.2 | -218.6 | 0.00 | 0.00 | |
| 5,400.0 | 4.71 | 55.16 | 5,384.2 | 223.3 | 320.9 | -223.3 | 0.00 | 0.00 | |
| 5,500.0 | 4.71 | 55.16 | 5,483.9 | 228.0 | 327.6 | -228.0 | 0.00 | 0.00 | |
| 5,600.0 | 4.71 | 55.16 | 5,583.5 | 232.7 | 334.4 | -232.7 | 0.00 | 0.00 | |
| 5,700.0 | 4.71 | 55.16 | 5,683.2 | 237.4 | 341.1 | -237.4 | 0.00 | 0.00 | |
| 5,800.0 | 4.71 | 55.16 | 5,782.9 | 242.1 | 347.8 | -242.1 | 0.00 | 0.00 | |
| 5,900.0 | 4.71 | 55.16 | 5,882.5 | 246.7 | 354.6 | -246.7 | 0.00 | 0.00 | |
| 6,000.0 | 4.71 | 55.16 | 5,982.2 | 251.4 | 361.3 | -251.4 | 0.00 | 0.00 | |
| 6,100.0 | 4.71 | 55.16 | 6,081.8 | 256.1 | 368.0 | -256.1 | 0.00 | 0.00 | |
| 6,200.0 | 4.71 | 55.16 | 6,181.5 | 260.8 | 374.8 | -260.8 | 0.00 | 0.00 | |
| 6,300.0 | 4.71 | 55.16 | 6,281.2 | 265.5 | 381.5 | -265.5 | 0.00 | 0.00 | |
| 6,315.8 | 4.71 | 55.16 | 6,296.9 | 266.2 | 382.6 | -266.2 | 0.00 | 0.00 | Start build/turn @ 6315' MD |
| 6,400.0 | 5.59 | 136.38 | 6,380.9 | 265.2 | 388.2 | -265.2 | 8.00 | 1.06 | |
| 6,500.0 | 12.64 | 162.47 | 6,479.6 | 251.3 | 394.9 | -251.3 | 8.00 | 7.05 | |
| 6,600.0 | 20.40 | 169.53 | 6,575.4 | 223.6 | 401.4 | -223.6 | 8.00 | 7.76 | |
| 6,700.0 | 28.29 | 172.79 | 6,666.4 | 182.9 | 407.5 | -182.9 | 8.00 | 7.89 | |
| 6,800.0 | 36.23 | 174.71 | 6,750.9 | 129.9 | 413.2 | -129.9 | 8.00 | 7.94 | |
| 6,900.0 | 44.18 | 176.01 | 6,827.2 | 65.6 | 418.4 | -65.6 | 8.00 | 7.96 | |
| 6,908.1 | 44.83 | 176.10 | 6,833.0 | 60.0 | 418.8 | -60.0 | 8.00 | 7.96 | Sharon Springs |
| 6,950.2 | 48.16 | 176.53 | 6,862.0 | 29.5 | 420.7 | -29.5 | 7.96 | 7.92 | Niobrara |
| 7,000.0 | 52.15 | 176.99 | 6,893.9 | -8.7 | 422.9 | 8.7 | 8.04 | 8.00 | |
| 7,092.9 | 59.56 | 177.72 | 6,946.0 | -85.5 | 426.4 | 85.5 | 8.00 | 7.97 | B Chalk |
| 7,100.0 | 60.12 | 177.78 | 6,949.6 | -91.6 | 426.7 | 91.6 | 8.00 | 7.98 | |
| 7,141.1 | 63.40 | 178.06 | 6,969.0 | -127.8 | 428.0 | 127.8 | 8.00 | 7.98 | B Marl |
| 7,200.0 | 68.10 | 178.44 | 6,993.2 | -181.4 | 429.6 | 181.4 | 8.00 | 7.98 | |
| 7,284.4 | 74.83 | 178.95 | 7,020.0 | -261.4 | 431.4 | 261.4 | 8.00 | 7.98 | C Chalk |
| 7,300.0 | 76.08 | 179.04 | 7,023.9 | -276.5 | 431.7 | 276.5 | 8.00 | 7.98 | |
| 7,400.0 | 84.06 | 179.60 | 7,041.1 | -374.9 | 432.9 | 374.9 | 8.00 | 7.98 | |
| 7,474.4 | 90.00 | 180.00 | 7,045.0 | -449.2 | 433.1 | 449.2 | 8.00 | 7.98 | LP @ 7045' TVD; 90° |
| 7,500.0 | 90.00 | 180.00 | 7,045.0 | -474.8 | 433.1 | 474.8 | 0.00 | 0.00 | |
| 7,600.0 | 90.00 | 180.00 | 7,045.0 | -574.8 | 433.1 | 574.8 | 0.00 | 0.00 | |
| 7,700.0 | 90.00 | 180.00 | 7,045.0 | -674.8 | 433.1 | 674.8 | 0.00 | 0.00 | |
| 7,800.0 | 90.00 | 180.00 | 7,045.0 | -774.8 | 433.1 | 774.8 | 0.00 | 0.00 | |
| 7,900.0 | 90.00 | 180.00 | 7,045.0 | -874.8 | 433.1 | 874.8 | 0.00 | 0.00 | |
| 8,000.0 | 90.00 | 180.00 | 7,045.0 | -974.8 | 433.1 | 974.8 | 0.00 | 0.00 | |
| 8,100.0 | 90.00 | 180.00 | 7,045.0 | -1,074.8 | 433.1 | 1,074.8 | 0.00 | 0.00 | |
| 8,200.0 | 90.00 | 180.00 | 7,045.0 | -1,174.8 | 433.1 | 1,174.8 | 0.00 | 0.00 | |
| 8,300.0 | 90.00 | 180.00 | 7,045.0 | -1,274.8 | 433.1 | 1,274.8 | 0.00 | 0.00 | |
| 8,400.0 | 90.00 | 180.00 | 7,045.0 | -1,374.8 | 433.1 | 1,374.8 | 0.00 | 0.00 | |
| 8,500.0 | 90.00 | 180.00 | 7,045.0 | -1,474.8 | 433.1 | 1,474.8 | 0.00 | 0.00 | |
| 8,600.0 | 90.00 | 180.00 | 7,045.0 | -1,574.8 | 433.1 | 1,574.8 | 0.00 | 0.00 | |
| 8,700.0 | 90.00 | 180.00 | 7,045.0 | -1,674.8 | 433.1 | 1,674.8 | 0.00 | 0.00 | |
| 8,800.0 | 90.00 | 180.00 | 7,045.0 | -1,774.8 | 433.1 | 1,774.8 | 0.00 | 0.00 | |
| 8,900.0 | 90.00 | 180.00 | 7,045.0 | -1,874.8 | 433.1 | 1,874.8 | 0.00 | 0.00 | |
| 9,000.0 | 90.00 | 180.00 | 7,045.0 | -1,974.8 | 433.1 | 1,974.8 | 0.00 | 0.00 | |
| 9,100.0 | 90.00 | 180.00 | 7,045.0 | -2,074.8 | 433.1 | 2,074.8 | 0.00 | 0.00 | |

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|-----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | KB @ 4955.0ft (No KB) |
| Project: | DJ Wattenberg | MD Reference: | KB @ 4955.0ft (No KB) |
| Site: | S32-T2N-R64W (Newman/Ruhl) | North Reference: | True |
| Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | Plan #1 | | |

Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| 9,200.0 | 90.00 | 180.00 | 7,045.0 | -2,174.8 | 433.1 | 2,174.8 | 0.00 | 0.00 | |
| 9,300.0 | 90.00 | 180.00 | 7,045.0 | -2,274.8 | 433.1 | 2,274.8 | 0.00 | 0.00 | |
| 9,400.0 | 90.00 | 180.00 | 7,045.0 | -2,374.8 | 433.1 | 2,374.8 | 0.00 | 0.00 | |
| 9,500.0 | 90.00 | 180.00 | 7,045.0 | -2,474.8 | 433.1 | 2,474.8 | 0.00 | 0.00 | |
| 9,600.0 | 90.00 | 180.00 | 7,045.0 | -2,574.8 | 433.1 | 2,574.8 | 0.00 | 0.00 | |
| 9,700.0 | 90.00 | 180.00 | 7,045.0 | -2,674.8 | 433.1 | 2,674.8 | 0.00 | 0.00 | |
| 9,800.0 | 90.00 | 180.00 | 7,045.0 | -2,774.8 | 433.1 | 2,774.8 | 0.00 | 0.00 | |
| 9,900.0 | 90.00 | 180.00 | 7,045.0 | -2,874.8 | 433.1 | 2,874.8 | 0.00 | 0.00 | |
| 10,000.0 | 90.00 | 180.00 | 7,045.0 | -2,974.8 | 433.1 | 2,974.8 | 0.00 | 0.00 | |
| 10,100.0 | 90.00 | 180.00 | 7,045.0 | -3,074.8 | 433.1 | 3,074.8 | 0.00 | 0.00 | |
| 10,200.0 | 90.00 | 180.00 | 7,045.0 | -3,174.8 | 433.1 | 3,174.8 | 0.00 | 0.00 | |
| 10,300.0 | 90.00 | 180.00 | 7,045.0 | -3,274.8 | 433.1 | 3,274.8 | 0.00 | 0.00 | |
| 10,400.0 | 90.00 | 180.00 | 7,045.0 | -3,374.8 | 433.1 | 3,374.8 | 0.00 | 0.00 | |
| 10,500.0 | 90.00 | 180.00 | 7,045.0 | -3,474.8 | 433.1 | 3,474.8 | 0.00 | 0.00 | |
| 10,600.0 | 90.00 | 180.00 | 7,045.0 | -3,574.8 | 433.1 | 3,574.8 | 0.00 | 0.00 | |
| 10,700.0 | 90.00 | 180.00 | 7,045.0 | -3,674.8 | 433.1 | 3,674.8 | 0.00 | 0.00 | |
| 10,800.0 | 90.00 | 180.00 | 7,045.0 | -3,774.8 | 433.1 | 3,774.8 | 0.00 | 0.00 | |
| 10,900.0 | 90.00 | 180.00 | 7,045.0 | -3,874.8 | 433.1 | 3,874.8 | 0.00 | 0.00 | |
| 11,000.0 | 90.00 | 180.00 | 7,045.0 | -3,974.8 | 433.1 | 3,974.8 | 0.00 | 0.00 | |
| 11,100.0 | 90.00 | 180.00 | 7,045.0 | -4,074.8 | 433.1 | 4,074.8 | 0.00 | 0.00 | |
| 11,200.0 | 90.00 | 180.00 | 7,045.0 | -4,174.8 | 433.1 | 4,174.8 | 0.00 | 0.00 | |
| 11,300.0 | 90.00 | 180.00 | 7,045.0 | -4,274.8 | 433.1 | 4,274.8 | 0.00 | 0.00 | |
| 11,400.0 | 90.00 | 180.00 | 7,045.0 | -4,374.8 | 433.1 | 4,374.8 | 0.00 | 0.00 | |
| 11,500.0 | 90.00 | 180.00 | 7,045.0 | -4,474.8 | 433.1 | 4,474.8 | 0.00 | 0.00 | |
| 11,579.4 | 90.00 | 180.00 | 7,045.0 | -4,554.2 | 433.1 | 4,554.2 | 0.00 | 0.00 | TD at 11579.4 |

Targets

| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
|---------------------------|---------------|--------------|----------|------------|------------|---------------|--------------|-----------|-------------|
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| Ruhl 1D-32H-B264 PBH | 0.00 | 0.00 | 7,045.0 | -4,554.2 | 433.1 | 1,276,605.31 | 3,259,621.48 | 40.088937 | -104.572085 |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

Formations

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---------------------|---------------------|-----------------------------|-----------|---------|-------------------|
| 1,001.0 | 1,000.0 | Fox Hills - BASE | | | |
| 4,414.5 | 4,402.0 | Sussex | | | |
| 4,671.3 | 4,658.0 | Shannon | | | |
| 4,994.4 | 4,980.0 | Teepee Buttes (*if present) | | | |
| 6,908.1 | 6,833.0 | Sharon Springs | | | |
| 6,950.2 | 6,862.0 | Niobrara | | | |
| 7,092.9 | 6,946.0 | B Chalk | | | |
| 7,141.1 | 6,969.0 | B Marl | | | |
| 7,284.4 | 7,020.0 | C Chalk | | | |

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|-----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | KB @ 4955.0ft (No KB) |
| Project: | DJ Wattenberg | MD Reference: | KB @ 4955.0ft (No KB) |
| Site: | S32-T2N-R64W (Newman/Ruhl) | North Reference: | True |
| Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Hz | | |
| Design: | Plan #1 | | |

Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------------|---------------------------|-------------------|---------------|-----------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 400.0 | 400.0 | 0.0 | 0.0 | KOP @ 400' |
| 870.6 | 870.1 | 11.0 | 15.9 | EOB; Inc=4.7° |
| 6,315.8 | 6,296.9 | 266.2 | 382.6 | Start build/turn @ 6315' MD |
| 7,474.4 | 7,045.0 | -449.2 | 433.1 | LP @ 7045' TVD; 90° |
| 11,579.4 | 7,045.0 | -4,554.2 | 433.1 | TD at 11579.4 |

EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S32-T2N-R64W (Newman)

Ruhl 1D-32H-B264

Hz

Plan #1

Anticollision Report

09 July, 2014

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| | | | |
|-------------------------------------|---|-----------------------|---------------------|
| Reference | Plan #1 | | |
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| Interpolation Method: | MD Interval 100.0ft | Error Model: | Systematic Ellipse |
| Depth Range: | Unlimited | Scan Method: | Closest Approach 3D |
| Results Limited by: | Maximum center-center distance of 1,000.0ft | Error Surface: | Elliptical Conic |
| Warning Levels Evaluated at: | 2.00 Sigma | | |

| | | | | | |
|----------------------------|----------------|--------------------------|------------------|--------------------|--|
| Survey Tool Program | | Date | 7/9/2014 | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description | |
| 0.0 | 11,579.2 | Plan #1 (Hz) | Geolink MWD | Geolink MWD | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name | Reference Measured Depth (ft) | Offset Measured Depth (ft) | Distance Between Centres (ft) | Distance Between Ellipses (ft) | Separation Factor | Warning |
|---|--|-------------------------------------|--|---|----------------------|--------------|
| Offset Well - Wellbore - Design | | | | | | |
| S32-T2N-R64W (Newman) | | | | | | |
| LAND USX Y31-01 (EXISTING) - EXISTING - NOBLE W | | | | | | Out of range |
| NEWMAN 2-32 (EXISTING) - EXISTING - ENCANA WE | | | | | | Out of range |
| Newman 2A-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2B-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2C-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2D-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2E-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2F-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2G-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2H-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2I-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2J-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2K-32H-C264 - HZ - Plan #1 | | | | | | Out of range |
| Newman 2L-32H-C264 - HZ - Plan #1 | 5,530.3 | 5,669.8 | 867.4 | 845.6 | 39.728 | CC |
| Newman 2L-32H-C264 - HZ - Plan #1 | 11,579.4 | 11,829.1 | 960.4 | 796.2 | 5.851 | ES, SF |
| RUHL 1 (EXISTING) - EXISTING - ENCANA WELL | 7,667.1 | 7,045.5 | 893.3 | 863.3 | 29.734 | CC, ES |
| RUHL 1 (EXISTING) - EXISTING - ENCANA WELL | 8,100.0 | 7,046.8 | 992.7 | 956.6 | 27.477 | SF |
| Ruhl 1A-32H-B264 - Hz - Plan #1 | 200.0 | 200.0 | 30.2 | 29.5 | 43.275 | CC, ES |
| Ruhl 1A-32H-B264 - Hz - Plan #1 | 11,579.4 | 11,568.2 | 675.1 | 510.4 | 4.098 | SF |
| Ruhl 1B-32H-B264 - Hz - Plan #1 | 400.0 | 400.0 | 20.1 | 18.7 | 14.425 | CC, ES |
| Ruhl 1B-32H-B264 - Hz - Plan #1 | 11,579.4 | 11,480.8 | 458.1 | 296.1 | 2.828 | SF |
| Ruhl 1C-32H-B264 - Hz - Plan #1 | 400.0 | 400.0 | 10.1 | 8.7 | 7.213 | CC, ES |
| Ruhl 1C-32H-B264 - Hz - Plan #1 | 11,579.4 | 11,696.8 | 258.8 | 114.4 | 1.792 | SF |
| Ruhl 1E-32H-B264 - Hz - Plan #1 | 333.5 | 333.5 | 9.8 | 8.6 | 8.416 | CC |
| Ruhl 1E-32H-B264 - Hz - Plan #1 | 400.0 | 399.9 | 10.0 | 8.6 | 7.157 | ES |
| Ruhl 1E-32H-B264 - Hz - Plan #1 | 11,579.4 | 11,511.7 | 240.5 | 85.7 | 1.554 | SF |
| Ruhl 1F-32H-B264 - Hz - Plan #1 | 200.0 | 200.0 | 19.9 | 19.2 | 28.453 | CC, ES |
| Ruhl 1F-32H-B264 - Hz - Plan #1 | 11,579.4 | 11,745.3 | 467.8 | 308.9 | 2.945 | SF |
| Ruhl 1G-32H-B264 - Hz - Plan #1 | 7,489.7 | 7,483.3 | 674.6 | 643.4 | 21.604 | CC |
| Ruhl 1G-32H-B264 - Hz - Plan #1 | 11,579.4 | 11,573.0 | 674.9 | 510.0 | 4.093 | ES, SF |
| Ruhl 1H-32H-B264 - Hz - Plan #1 | 900.0 | 846.8 | 771.4 | 768.4 | 250.646 | CC |
| Ruhl 1H-32H-B264 - Hz - Plan #1 | 11,579.4 | 11,504.5 | 903.8 | 739.6 | 5.506 | ES, SF |
| Ruhl 1I-32H-B264 - Hz - Plan #1 | 333.3 | 333.3 | 782.2 | 781.0 | 672.209 | CC |
| Ruhl 1I-32H-B264 - Hz - Plan #1 | 400.0 | 394.3 | 782.3 | 780.9 | 564.297 | ES |
| Ruhl 1I-32H-B264 - Hz - Plan #1 | 5,100.0 | 5,000.5 | 999.3 | 980.2 | 52.375 | SF |
| Ruhl 1J-32H-B264 - Hz - Plan #1 | 300.0 | 300.0 | 792.2 | 791.2 | 756.517 | CC, ES |
| Ruhl 1J-32H-B264 - Hz - Plan #1 | 3,300.0 | 3,167.5 | 995.3 | 983.2 | 82.398 | SF |
| Ruhl 1K-32H-B264 - Hz - Plan #1 | 233.3 | 233.3 | 802.0 | 801.2 | 984.686 | CC |
| Ruhl 1K-32H-B264 - Hz - Plan #1 | 300.0 | 294.0 | 802.2 | 801.2 | 773.755 | ES |
| Ruhl 1K-32H-B264 - Hz - Plan #1 | 2,600.0 | 2,429.9 | 998.5 | 989.2 | 107.255 | SF |
| Ruhl 1L-32H-B264 - Hz - Plan #1 | 200.0 | 200.0 | 812.1 | 811.4 | 1,163.223 | CC, ES |
| Ruhl 1L-32H-B264 - Hz - Plan #1 | 2,200.0 | 2,003.8 | 984.8 | 977.1 | 127.678 | SF |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Newman 2L-32H-C264 - HZ - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | Total Uncertainty Axis | Separation Factor | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | | | | |
| 3,900.0 | 3,889.3 | 4,132.8 | 4,082.7 | 8.3 | 12.8 | -142.85 | 199.1 | -760.3 | 994.8 | 979.3 | 15.51 | 64.155 | | |
| 4,000.0 | 3,988.9 | 4,232.3 | 4,180.7 | 8.5 | 13.2 | -142.77 | 204.7 | -743.7 | 984.8 | 968.9 | 15.91 | 61.881 | | |
| 4,100.0 | 4,088.6 | 4,331.8 | 4,278.6 | 8.8 | 13.5 | -142.69 | 210.3 | -727.1 | 974.9 | 958.5 | 16.32 | 59.718 | | |
| 4,200.0 | 4,188.2 | 4,431.3 | 4,376.6 | 9.0 | 13.9 | -142.61 | 215.9 | -710.5 | 964.9 | 948.2 | 16.73 | 57.658 | | |
| 4,300.0 | 4,287.9 | 4,530.8 | 4,474.5 | 9.2 | 14.3 | -142.52 | 221.5 | -693.9 | 955.0 | 937.8 | 17.15 | 55.695 | | |
| 4,400.0 | 4,387.6 | 4,630.3 | 4,572.4 | 9.4 | 14.6 | -142.44 | 227.1 | -677.3 | 945.0 | 927.4 | 17.56 | 53.820 | | |
| 4,500.0 | 4,487.2 | 4,729.8 | 4,670.4 | 9.7 | 15.0 | -142.35 | 232.6 | -660.7 | 935.1 | 917.1 | 17.97 | 52.029 | | |
| 4,600.0 | 4,586.9 | 4,829.3 | 4,768.3 | 9.9 | 15.3 | -142.26 | 238.2 | -644.1 | 925.1 | 906.7 | 18.39 | 50.316 | | |
| 4,700.0 | 4,686.6 | 4,928.8 | 4,866.3 | 10.1 | 15.7 | -142.16 | 243.8 | -627.5 | 915.2 | 896.4 | 18.80 | 48.677 | | |
| 4,800.0 | 4,786.2 | 5,028.3 | 4,964.2 | 10.3 | 16.0 | -142.07 | 249.4 | -610.9 | 905.2 | 886.0 | 19.22 | 47.105 | | |
| 4,900.0 | 4,885.9 | 5,118.7 | 5,053.2 | 10.6 | 16.3 | -141.99 | 254.4 | -596.2 | 895.6 | 876.0 | 19.61 | 45.673 | | |
| 5,000.0 | 4,985.5 | 5,200.0 | 5,133.6 | 10.8 | 16.6 | -141.95 | 258.5 | -584.0 | 887.4 | 867.5 | 19.98 | 44.427 | | |
| 5,100.0 | 5,085.2 | 5,293.0 | 5,225.6 | 11.0 | 16.9 | -141.93 | 262.7 | -571.3 | 880.6 | 860.2 | 20.35 | 43.263 | | |
| 5,200.0 | 5,184.9 | 5,380.4 | 5,312.3 | 11.2 | 17.1 | -141.95 | 266.3 | -560.8 | 875.2 | 854.5 | 20.71 | 42.252 | | |
| 5,300.0 | 5,284.5 | 5,468.0 | 5,399.3 | 11.5 | 17.3 | -142.00 | 269.4 | -551.4 | 871.2 | 850.1 | 21.06 | 41.361 | | |
| 5,400.0 | 5,384.2 | 5,555.6 | 5,486.5 | 11.7 | 17.5 | -142.08 | 272.1 | -543.4 | 868.6 | 847.2 | 21.40 | 40.583 | | |
| 5,500.0 | 5,483.9 | 5,643.2 | 5,573.8 | 11.9 | 17.7 | -142.20 | 274.4 | -536.5 | 867.5 | 845.8 | 21.74 | 39.911 | | |
| 5,530.3 | 5,514.1 | 5,669.8 | 5,600.4 | 12.0 | 17.7 | -142.24 | 275.0 | -534.7 | 867.4 | 845.6 | 21.83 | 39.728 CC | | |
| 5,600.0 | 5,583.5 | 5,730.8 | 5,661.3 | 12.1 | 17.9 | -142.35 | 276.3 | -531.0 | 867.8 | 845.7 | 22.06 | 39.341 | | |
| 5,700.0 | 5,683.2 | 5,818.4 | 5,748.7 | 12.4 | 18.0 | -142.53 | 277.7 | -526.7 | 869.5 | 847.1 | 22.37 | 38.867 | | |
| 5,800.0 | 5,782.9 | 5,900.0 | 5,830.3 | 12.6 | 18.1 | -142.72 | 278.7 | -523.9 | 872.7 | 850.0 | 22.67 | 38.497 | | |
| 5,900.0 | 5,882.5 | 5,993.2 | 5,923.5 | 12.8 | 18.2 | -142.98 | 279.3 | -522.0 | 877.2 | 854.2 | 22.97 | 38.188 | | |
| 6,000.0 | 5,982.2 | 6,081.9 | 6,012.2 | 13.0 | 18.3 | -143.25 | 279.5 | -521.5 | 883.2 | 860.0 | 23.26 | 37.968 | | |
| 6,100.0 | 6,081.8 | 6,181.6 | 6,111.8 | 13.3 | 18.4 | -143.57 | 279.5 | -521.5 | 889.8 | 866.3 | 23.57 | 37.759 | | |
| 6,200.0 | 6,181.5 | 6,281.3 | 6,211.5 | 13.5 | 18.5 | -143.88 | 279.5 | -521.5 | 896.5 | 872.6 | 23.87 | 37.554 | | |
| 6,300.0 | 6,281.2 | 6,380.9 | 6,311.2 | 13.7 | 18.6 | -144.19 | 279.5 | -521.5 | 903.1 | 878.9 | 24.18 | 37.353 | | |
| 6,400.0 | 6,380.9 | 6,480.6 | 6,410.9 | 13.9 | 18.7 | 134.38 | 279.5 | -521.5 | 909.8 | 885.4 | 24.41 | 37.268 | | |
| 6,500.0 | 6,479.6 | 6,579.3 | 6,509.6 | 14.0 | 18.8 | 108.86 | 279.5 | -521.5 | 916.8 | 892.2 | 24.66 | 37.179 | | |
| 6,600.0 | 6,575.4 | 6,675.3 | 6,605.5 | 14.0 | 18.9 | 103.09 | 279.5 | -521.5 | 924.6 | 899.7 | 24.92 | 37.100 | | |
| 6,700.0 | 6,666.4 | 6,783.5 | 6,713.1 | 14.1 | 19.0 | 101.53 | 269.0 | -521.5 | 933.2 | 908.1 | 25.08 | 37.214 | | |
| 6,800.0 | 6,750.9 | 6,900.5 | 6,824.9 | 14.1 | 19.0 | 101.07 | 235.2 | -521.5 | 941.7 | 916.7 | 25.03 | 37.629 | | |
| 6,900.0 | 6,827.2 | 7,025.7 | 6,934.2 | 14.1 | 18.9 | 100.87 | 174.8 | -521.5 | 949.4 | 924.5 | 24.87 | 38.178 | | |
| 7,000.0 | 6,893.9 | 7,157.0 | 7,031.9 | 14.3 | 18.9 | 100.55 | 87.6 | -521.5 | 955.4 | 930.6 | 24.82 | 38.492 | | |
| 7,100.0 | 6,949.6 | 7,291.1 | 7,108.7 | 14.6 | 19.0 | 99.90 | -22.1 | -521.5 | 959.5 | 934.3 | 25.19 | 38.089 | | |
| 7,200.0 | 6,993.2 | 7,424.1 | 7,157.5 | 15.1 | 19.4 | 98.84 | -145.4 | -521.5 | 961.3 | 935.1 | 26.19 | 36.704 | | |
| 7,300.0 | 7,023.9 | 7,552.1 | 7,176.6 | 15.7 | 20.0 | 97.42 | -271.8 | -521.5 | 961.1 | 933.3 | 27.82 | 34.544 | | |
| 7,400.0 | 7,041.1 | 7,655.2 | 7,177.0 | 16.5 | 20.7 | 96.34 | -374.8 | -521.5 | 960.2 | 930.5 | 29.73 | 32.299 | | |
| 7,497.8 | 7,046.3 | 7,752.8 | 7,177.0 | 17.4 | 21.4 | 96.02 | -472.4 | -521.5 | 960.0 | 928.2 | 31.80 | 30.191 | | |
| 7,500.0 | 7,045.0 | 7,755.0 | 7,177.0 | 17.5 | 21.4 | 96.10 | -474.7 | -521.6 | 960.1 | 928.3 | 31.85 | 30.148 | | |
| 7,600.0 | 7,045.0 | 7,855.0 | 7,177.0 | 18.5 | 22.3 | 96.10 | -574.7 | -521.6 | 960.1 | 926.0 | 34.15 | 28.116 | | |
| 7,700.0 | 7,045.0 | 7,955.0 | 7,177.0 | 19.7 | 23.3 | 96.10 | -674.7 | -521.6 | 960.1 | 923.5 | 36.64 | 26.206 | | |
| 7,800.0 | 7,045.0 | 8,055.0 | 7,177.0 | 20.9 | 24.3 | 96.10 | -774.7 | -521.6 | 960.1 | 920.8 | 39.28 | 24.443 | | |
| 7,900.0 | 7,045.0 | 8,155.0 | 7,177.0 | 22.2 | 25.5 | 96.10 | -874.7 | -521.6 | 960.1 | 918.1 | 42.05 | 22.835 | | |
| 8,000.0 | 7,045.0 | 8,255.0 | 7,177.0 | 23.6 | 26.7 | 96.10 | -974.7 | -521.6 | 960.1 | 915.2 | 44.91 | 21.378 | | |
| 8,100.0 | 7,045.0 | 8,355.0 | 7,177.0 | 25.0 | 28.0 | 96.10 | -1,074.7 | -521.6 | 960.1 | 912.3 | 47.86 | 20.060 | | |
| 8,200.0 | 7,045.0 | 8,455.0 | 7,177.0 | 26.5 | 29.3 | 96.10 | -1,174.7 | -521.6 | 960.1 | 909.3 | 50.88 | 18.871 | | |
| 8,300.0 | 7,045.0 | 8,555.0 | 7,177.0 | 27.9 | 30.6 | 96.10 | -1,274.7 | -521.6 | 960.1 | 906.2 | 53.95 | 17.795 | | |
| 8,400.0 | 7,045.0 | 8,655.0 | 7,177.0 | 29.5 | 32.1 | 96.10 | -1,374.7 | -521.6 | 960.2 | 903.1 | 57.08 | 16.822 | | |
| 8,500.0 | 7,045.0 | 8,755.0 | 7,177.0 | 31.0 | 33.5 | 96.10 | -1,474.7 | -521.6 | 960.2 | 899.9 | 60.24 | 15.939 | | |
| 8,600.0 | 7,045.0 | 8,855.0 | 7,177.0 | 32.6 | 35.0 | 96.10 | -1,574.7 | -521.6 | 960.2 | 896.7 | 63.44 | 15.136 | | |
| 8,700.0 | 7,045.0 | 8,955.0 | 7,177.0 | 34.2 | 36.4 | 96.10 | -1,674.7 | -521.6 | 960.2 | 893.5 | 66.66 | 14.403 | | |
| 8,800.0 | 7,045.0 | 9,055.0 | 7,177.0 | 35.8 | 38.0 | 96.10 | -1,774.7 | -521.6 | 960.2 | 890.3 | 69.91 | 13.734 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Newman 2L-32H-C264 - HZ - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | | |
| 8,900.0 | 7,045.0 | 9,155.0 | 7,177.0 | 37.4 | 39.5 | 96.10 | -1,874.7 | -521.6 | 960.2 | 887.0 | 73.19 | 13.120 | | |
| 9,000.0 | 7,045.0 | 9,255.0 | 7,177.0 | 39.0 | 41.0 | 96.10 | -1,974.7 | -521.6 | 960.2 | 883.7 | 76.48 | 12.555 | | |
| 9,100.0 | 7,045.0 | 9,355.0 | 7,177.0 | 40.6 | 42.6 | 96.10 | -2,074.7 | -521.7 | 960.2 | 880.4 | 79.79 | 12.034 | | |
| 9,200.0 | 7,045.0 | 9,455.0 | 7,177.0 | 42.3 | 44.2 | 96.10 | -2,174.7 | -521.7 | 960.2 | 877.1 | 83.11 | 11.553 | | |
| 9,300.0 | 7,045.0 | 9,555.0 | 7,177.0 | 43.9 | 45.8 | 96.10 | -2,274.7 | -521.7 | 960.2 | 873.8 | 86.45 | 11.107 | | |
| 9,400.0 | 7,045.0 | 9,655.0 | 7,177.0 | 45.6 | 47.4 | 96.10 | -2,374.7 | -521.7 | 960.2 | 870.4 | 89.80 | 10.693 | | |
| 9,500.0 | 7,045.0 | 9,755.0 | 7,177.0 | 47.3 | 49.0 | 96.10 | -2,474.7 | -521.7 | 960.2 | 867.1 | 93.15 | 10.308 | | |
| 9,600.0 | 7,045.0 | 9,855.0 | 7,177.0 | 48.9 | 50.6 | 96.10 | -2,574.7 | -521.7 | 960.2 | 863.7 | 96.52 | 9.948 | | |
| 9,700.0 | 7,045.0 | 9,955.0 | 7,177.0 | 50.6 | 52.3 | 96.10 | -2,674.7 | -521.7 | 960.2 | 860.3 | 99.90 | 9.612 | | |
| 9,800.0 | 7,045.0 | 10,055.0 | 7,177.0 | 52.3 | 53.9 | 96.10 | -2,774.7 | -521.7 | 960.2 | 857.0 | 103.28 | 9.297 | | |
| 9,900.0 | 7,045.0 | 10,155.0 | 7,177.0 | 54.0 | 55.5 | 96.10 | -2,874.7 | -521.7 | 960.2 | 853.6 | 106.67 | 9.002 | | |
| 10,000.0 | 7,045.0 | 10,255.0 | 7,177.0 | 55.7 | 57.2 | 96.10 | -2,974.7 | -521.7 | 960.3 | 850.2 | 110.07 | 8.724 | | |
| 10,100.0 | 7,045.0 | 10,355.0 | 7,177.0 | 57.4 | 58.9 | 96.10 | -3,074.7 | -521.7 | 960.3 | 846.8 | 113.47 | 8.463 | | |
| 10,200.0 | 7,045.0 | 10,455.0 | 7,177.0 | 59.1 | 60.5 | 96.10 | -3,174.7 | -521.7 | 960.3 | 843.4 | 116.88 | 8.216 | | |
| 10,300.0 | 7,045.0 | 10,555.0 | 7,177.0 | 60.8 | 62.2 | 96.10 | -3,274.7 | -521.7 | 960.3 | 840.0 | 120.29 | 7.983 | | |
| 10,400.0 | 7,045.0 | 10,655.0 | 7,177.0 | 62.5 | 63.9 | 96.10 | -3,374.7 | -521.7 | 960.3 | 836.6 | 123.71 | 7.763 | | |
| 10,500.0 | 7,045.0 | 10,755.0 | 7,177.0 | 64.2 | 65.5 | 96.10 | -3,474.7 | -521.7 | 960.3 | 833.2 | 127.13 | 7.554 | | |
| 10,600.0 | 7,045.0 | 10,855.0 | 7,177.0 | 65.9 | 67.2 | 96.10 | -3,574.7 | -521.7 | 960.3 | 829.7 | 130.55 | 7.356 | | |
| 10,700.0 | 7,045.0 | 10,955.0 | 7,177.0 | 67.6 | 68.9 | 96.10 | -3,674.7 | -521.8 | 960.3 | 826.3 | 133.98 | 7.168 | | |
| 10,800.0 | 7,045.0 | 11,055.0 | 7,177.0 | 69.3 | 70.6 | 96.10 | -3,774.7 | -521.8 | 960.3 | 822.9 | 137.41 | 6.989 | | |
| 10,900.0 | 7,045.0 | 11,155.0 | 7,177.0 | 71.1 | 72.3 | 96.10 | -3,874.7 | -521.8 | 960.3 | 819.5 | 140.84 | 6.819 | | |
| 11,000.0 | 7,045.0 | 11,255.0 | 7,177.0 | 72.8 | 74.0 | 96.10 | -3,974.7 | -521.8 | 960.3 | 816.0 | 144.27 | 6.656 | | |
| 11,100.0 | 7,045.0 | 11,355.0 | 7,177.0 | 74.5 | 75.7 | 96.10 | -4,074.7 | -521.8 | 960.3 | 812.6 | 147.71 | 6.501 | | |
| 11,200.0 | 7,045.0 | 11,455.0 | 7,177.0 | 76.2 | 77.4 | 96.10 | -4,174.7 | -521.8 | 960.3 | 809.2 | 151.15 | 6.353 | | |
| 11,300.0 | 7,045.0 | 11,555.0 | 7,177.0 | 77.9 | 79.1 | 96.10 | -4,274.7 | -521.8 | 960.3 | 805.7 | 154.59 | 6.212 | | |
| 11,400.0 | 7,045.0 | 11,655.0 | 7,177.0 | 79.7 | 80.8 | 96.10 | -4,374.7 | -521.8 | 960.3 | 802.3 | 158.04 | 6.077 | | |
| 11,500.0 | 7,045.0 | 11,755.0 | 7,177.0 | 81.4 | 82.5 | 96.10 | -4,474.7 | -521.8 | 960.3 | 798.9 | 161.49 | 5.947 | | |
| 11,545.0 | 7,045.0 | 11,800.0 | 7,177.0 | 82.2 | 83.3 | 96.10 | -4,519.7 | -521.8 | 960.3 | 797.3 | 163.04 | 5.890 | | |
| 11,579.4 | 7,045.0 | 11,829.1 | 7,177.0 | 82.8 | 83.8 | 96.10 | -4,548.7 | -521.8 | 960.4 | 796.2 | 164.13 | 5.851 ES, SF | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design | | S32-T2N-R64W (Newman) - RUHL 1 (EXISTING) - EXISTING - ENCANA WELL | | | | | | | | | | Offset Site Error: | | 0.0 ft | |
|-----------------|----------------|--|----------------|-----------------|--------|-------------------|------------------------|------------|-----------------|------------------|------------------------|--------------------|--------|---------|--|
| Survey Program: | | 100-Geolink MWD | | | | | | | | | | Offset Well Error: | | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | |
| Measured Depth | Vertical Depth | Measured Depth | Vertical Depth | Reference | Offset | Highside Toolface | Offset Wellbore Centre | | Between Centres | Between Ellipses | Total Uncertainty Axis | Separation Factor | | | |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | +N/-S (ft) | +E/-W (ft) | (ft) | (ft) | | | | | |
| 7,300.0 | 7,023.9 | 7,018.2 | 7,017.0 | 15.7 | 12.3 | -81.21 | -641.8 | 1,324.2 | 965.5 | 939.6 | 25.87 | 37.329 | | | |
| 7,400.0 | 7,041.1 | 7,039.9 | 7,038.6 | 16.5 | 12.3 | -85.47 | -641.8 | 1,325.3 | 932.4 | 905.5 | 26.95 | 34.594 | | | |
| 7,500.0 | 7,045.0 | 7,045.0 | 7,043.7 | 17.5 | 12.3 | -87.35 | -641.9 | 1,325.5 | 908.8 | 880.8 | 28.03 | 32.418 | | | |
| 7,600.0 | 7,045.0 | 7,045.3 | 7,044.0 | 18.5 | 12.3 | -87.37 | -641.9 | 1,325.5 | 895.9 | 866.7 | 29.20 | 30.681 | | | |
| 7,667.1 | 7,045.0 | 7,045.5 | 7,044.2 | 19.3 | 12.3 | -87.38 | -641.9 | 1,325.5 | 893.3 | 863.3 | 30.04 | 29.734 | CC, ES | | |
| 7,700.0 | 7,045.0 | 7,045.6 | 7,044.3 | 19.7 | 12.3 | -87.39 | -641.9 | 1,325.5 | 893.9 | 863.5 | 30.46 | 29.349 | | | |
| 7,800.0 | 7,045.0 | 7,045.9 | 7,044.6 | 20.9 | 12.3 | -87.41 | -641.9 | 1,325.5 | 903.2 | 871.4 | 31.79 | 28.407 | | | |
| 7,900.0 | 7,045.0 | 7,046.2 | 7,044.9 | 22.2 | 12.3 | -87.43 | -641.9 | 1,325.5 | 923.2 | 890.0 | 33.19 | 27.814 | | | |
| 8,000.0 | 7,045.0 | 7,046.5 | 7,045.2 | 23.6 | 12.3 | -87.45 | -641.9 | 1,325.6 | 953.3 | 918.7 | 34.64 | 27.522 | | | |
| 8,100.0 | 7,045.0 | 7,046.8 | 7,045.5 | 25.0 | 12.3 | -87.47 | -641.9 | 1,325.6 | 992.7 | 956.6 | 36.13 | 27.477 | SF | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1A-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|---------|---------------|--------------------|--------|
| Survey Program: O-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -89.95 | 0.0 | -30.2 | 30.2 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | -89.95 | 0.0 | -30.2 | 30.2 | 29.9 | 0.35 | 86.550 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -89.95 | 0.0 | -30.2 | 30.2 | 29.5 | 0.70 | 43.275 CC, ES | | |
| 300.0 | 300.0 | 299.4 | 299.3 | 0.5 | 0.5 | -87.36 | 1.4 | -31.2 | 31.2 | 30.2 | 1.05 | 29.770 | | |
| 400.0 | 400.0 | 398.8 | 398.7 | 0.7 | 0.7 | -80.92 | 5.4 | -34.0 | 34.4 | 33.0 | 1.41 | 24.409 | | |
| 500.0 | 500.0 | 498.7 | 498.4 | 0.9 | 0.9 | -131.16 | 9.9 | -37.1 | 39.0 | 37.2 | 1.76 | 22.178 | | |
| 600.0 | 600.0 | 598.5 | 598.1 | 1.1 | 1.1 | -129.04 | 14.4 | -40.2 | 44.9 | 42.8 | 2.12 | 21.206 | | |
| 700.0 | 699.9 | 698.2 | 697.7 | 1.2 | 1.3 | -128.93 | 18.9 | -43.3 | 51.9 | 49.4 | 2.48 | 20.927 | | |
| 800.0 | 799.7 | 797.9 | 797.2 | 1.4 | 1.5 | -130.12 | 23.3 | -46.5 | 60.0 | 57.1 | 2.85 | 21.057 | | |
| 900.0 | 899.4 | 897.5 | 896.6 | 1.6 | 1.7 | -132.07 | 27.8 | -49.6 | 69.2 | 66.0 | 3.22 | 21.462 | | |
| 1,000.0 | 999.0 | 997.0 | 995.9 | 1.8 | 1.9 | -133.84 | 32.3 | -52.7 | 78.8 | 75.2 | 3.60 | 21.864 | | |
| 1,100.0 | 1,098.7 | 1,096.5 | 1,095.3 | 2.1 | 2.1 | -135.21 | 36.7 | -55.8 | 88.4 | 84.4 | 3.98 | 22.198 | | |
| 1,200.0 | 1,198.4 | 1,196.0 | 1,194.7 | 2.3 | 2.3 | -136.32 | 41.2 | -58.9 | 98.1 | 93.7 | 4.36 | 22.479 | | |
| 1,300.0 | 1,298.0 | 1,295.5 | 1,294.0 | 2.5 | 2.5 | -137.23 | 45.6 | -62.0 | 107.8 | 103.1 | 4.75 | 22.720 | | |
| 1,400.0 | 1,397.7 | 1,395.0 | 1,393.4 | 2.7 | 2.7 | -137.99 | 50.1 | -65.1 | 117.6 | 112.4 | 5.13 | 22.929 | | |
| 1,500.0 | 1,497.3 | 1,494.5 | 1,492.8 | 2.9 | 2.9 | -138.63 | 54.6 | -68.2 | 127.3 | 121.8 | 5.51 | 23.111 | | |
| 1,600.0 | 1,597.0 | 1,594.1 | 1,592.1 | 3.1 | 3.1 | -139.18 | 59.0 | -71.3 | 137.1 | 131.2 | 5.89 | 23.271 | | |
| 1,700.0 | 1,696.7 | 1,693.6 | 1,691.5 | 3.4 | 3.3 | -139.65 | 63.5 | -74.4 | 146.9 | 140.6 | 6.27 | 23.413 | | |
| 1,800.0 | 1,796.3 | 1,793.1 | 1,790.9 | 3.6 | 3.5 | -140.07 | 67.9 | -77.6 | 156.7 | 150.0 | 6.66 | 23.540 | | |
| 1,900.0 | 1,896.0 | 1,892.6 | 1,890.2 | 3.8 | 3.7 | -140.44 | 72.4 | -80.7 | 166.5 | 159.4 | 7.04 | 23.654 | | |
| 2,000.0 | 1,995.7 | 1,992.1 | 1,989.6 | 4.0 | 3.9 | -140.77 | 76.9 | -83.8 | 176.3 | 168.8 | 7.42 | 23.757 | | |
| 2,100.0 | 2,095.3 | 2,091.6 | 2,088.9 | 4.3 | 4.1 | -141.06 | 81.3 | -86.9 | 186.1 | 178.3 | 7.80 | 23.851 | | |
| 2,200.0 | 2,195.0 | 2,191.1 | 2,188.3 | 4.5 | 4.3 | -141.32 | 85.8 | -90.0 | 195.9 | 187.7 | 8.18 | 23.936 | | |
| 2,300.0 | 2,294.7 | 2,290.6 | 2,287.7 | 4.7 | 4.5 | -141.56 | 90.3 | -93.1 | 205.7 | 197.1 | 8.57 | 24.015 | | |
| 2,400.0 | 2,394.3 | 2,390.2 | 2,387.0 | 4.9 | 4.7 | -141.78 | 94.7 | -96.2 | 215.5 | 206.6 | 8.95 | 24.086 | | |
| 2,500.0 | 2,494.0 | 2,489.7 | 2,486.4 | 5.2 | 4.8 | -141.97 | 99.2 | -99.3 | 225.3 | 216.0 | 9.33 | 24.153 | | |
| 2,600.0 | 2,593.6 | 2,589.2 | 2,585.8 | 5.4 | 5.0 | -142.16 | 103.6 | -102.4 | 235.2 | 225.5 | 9.71 | 24.214 | | |
| 2,700.0 | 2,693.3 | 2,688.7 | 2,685.1 | 5.6 | 5.2 | -142.32 | 108.1 | -105.5 | 245.0 | 234.9 | 10.09 | 24.271 | | |
| 2,800.0 | 2,793.0 | 2,788.2 | 2,784.5 | 5.8 | 5.4 | -142.48 | 112.6 | -108.7 | 254.8 | 244.4 | 10.48 | 24.323 | | |
| 2,900.0 | 2,892.6 | 2,887.7 | 2,883.9 | 6.1 | 5.6 | -142.62 | 117.0 | -111.8 | 264.7 | 253.8 | 10.86 | 24.373 | | |
| 3,000.0 | 2,992.3 | 2,987.2 | 2,983.2 | 6.3 | 5.8 | -142.75 | 121.5 | -114.9 | 274.5 | 263.3 | 11.24 | 24.419 | | |
| 3,100.0 | 3,092.0 | 3,086.8 | 3,082.6 | 6.5 | 6.0 | -142.87 | 126.0 | -118.0 | 284.3 | 272.7 | 11.62 | 24.462 | | |
| 3,200.0 | 3,191.6 | 3,186.3 | 3,182.0 | 6.7 | 6.2 | -142.99 | 130.4 | -121.1 | 294.2 | 282.2 | 12.01 | 24.502 | | |
| 3,300.0 | 3,291.3 | 3,285.8 | 3,281.3 | 7.0 | 6.4 | -143.10 | 134.9 | -124.2 | 304.0 | 291.6 | 12.39 | 24.541 | | |
| 3,400.0 | 3,390.9 | 3,385.3 | 3,380.7 | 7.2 | 6.6 | -143.20 | 139.3 | -127.3 | 313.8 | 301.1 | 12.77 | 24.576 | | |
| 3,500.0 | 3,490.6 | 3,484.8 | 3,480.1 | 7.4 | 6.8 | -143.29 | 143.8 | -130.4 | 323.7 | 310.5 | 13.15 | 24.610 | | |
| 3,600.0 | 3,590.3 | 3,584.3 | 3,579.4 | 7.6 | 7.0 | -143.38 | 148.3 | -133.5 | 333.5 | 320.0 | 13.53 | 24.642 | | |
| 3,700.0 | 3,689.9 | 3,683.8 | 3,678.8 | 7.9 | 7.2 | -143.46 | 152.7 | -136.6 | 343.3 | 329.4 | 13.92 | 24.673 | | |
| 3,800.0 | 3,789.6 | 3,783.4 | 3,778.2 | 8.1 | 7.4 | -143.54 | 157.2 | -139.8 | 353.2 | 338.9 | 14.30 | 24.701 | | |
| 3,900.0 | 3,889.3 | 3,882.9 | 3,877.5 | 8.3 | 7.6 | -143.62 | 161.7 | -142.9 | 363.0 | 348.3 | 14.68 | 24.729 | | |
| 4,000.0 | 3,988.9 | 3,982.4 | 3,976.9 | 8.5 | 7.8 | -143.69 | 166.1 | -146.0 | 372.9 | 357.8 | 15.06 | 24.755 | | |
| 4,100.0 | 4,088.6 | 4,081.9 | 4,076.2 | 8.8 | 8.0 | -143.76 | 170.6 | -149.1 | 382.7 | 367.3 | 15.44 | 24.779 | | |
| 4,200.0 | 4,188.2 | 4,181.4 | 4,175.6 | 9.0 | 8.2 | -143.82 | 175.0 | -152.2 | 392.6 | 376.7 | 15.83 | 24.803 | | |
| 4,300.0 | 4,287.9 | 4,280.9 | 4,275.0 | 9.2 | 8.4 | -143.88 | 179.5 | -155.3 | 402.4 | 386.2 | 16.21 | 24.825 | | |
| 4,400.0 | 4,387.6 | 4,380.4 | 4,374.3 | 9.4 | 8.6 | -143.94 | 184.0 | -158.4 | 412.2 | 395.7 | 16.59 | 24.847 | | |
| 4,500.0 | 4,487.2 | 4,479.9 | 4,473.7 | 9.7 | 8.8 | -143.99 | 188.4 | -161.5 | 422.1 | 405.1 | 16.97 | 24.867 | | |
| 4,600.0 | 4,586.9 | 4,579.5 | 4,573.1 | 9.9 | 9.0 | -144.05 | 192.9 | -164.6 | 431.9 | 414.6 | 17.36 | 24.887 | | |
| 4,700.0 | 4,686.6 | 4,679.0 | 4,672.4 | 10.1 | 9.2 | -144.10 | 197.4 | -167.7 | 441.8 | 424.0 | 17.74 | 24.906 | | |
| 4,800.0 | 4,786.2 | 4,778.5 | 4,771.8 | 10.3 | 9.4 | -144.14 | 201.8 | -170.9 | 451.6 | 433.5 | 18.12 | 24.924 | | |
| 4,900.0 | 4,885.9 | 4,878.0 | 4,871.2 | 10.6 | 9.6 | -144.19 | 206.3 | -174.0 | 461.5 | 443.0 | 18.50 | 24.941 | | |
| 5,000.0 | 4,985.5 | 4,977.5 | 4,970.5 | 10.8 | 9.8 | -144.23 | 210.7 | -177.1 | 471.3 | 452.4 | 18.88 | 24.958 | | |
| 5,100.0 | 5,085.2 | 5,077.0 | 5,069.9 | 11.0 | 10.0 | -144.28 | 215.2 | -180.2 | 481.2 | 461.9 | 19.27 | 24.974 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1A-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|--------------------|---------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | | |
| 5,200.0 | 5,184.9 | 5,176.5 | 5,169.3 | 11.2 | 10.2 | -144.32 | 219.7 | -183.3 | 491.0 | 471.4 | 19.65 | 24.989 | | |
| 5,300.0 | 5,284.5 | 5,276.1 | 5,268.6 | 11.5 | 10.4 | -144.36 | 224.1 | -186.4 | 500.8 | 480.8 | 20.03 | 25.004 | | |
| 5,400.0 | 5,384.2 | 5,375.6 | 5,368.0 | 11.7 | 10.6 | -144.39 | 228.6 | -189.5 | 510.7 | 490.3 | 20.41 | 25.018 | | |
| 5,500.0 | 5,483.9 | 5,475.1 | 5,467.4 | 11.9 | 10.8 | -144.43 | 233.0 | -192.6 | 520.5 | 499.7 | 20.79 | 25.032 | | |
| 5,600.0 | 5,583.5 | 5,574.6 | 5,566.7 | 12.1 | 11.0 | -144.47 | 237.5 | -195.7 | 530.4 | 509.2 | 21.18 | 25.045 | | |
| 5,700.0 | 5,683.2 | 5,674.1 | 5,666.1 | 12.4 | 11.2 | -144.50 | 242.0 | -198.9 | 540.2 | 518.7 | 21.56 | 25.058 | | |
| 5,800.0 | 5,782.9 | 5,773.6 | 5,765.4 | 12.6 | 11.4 | -144.53 | 246.4 | -202.0 | 550.1 | 528.1 | 21.94 | 25.070 | | |
| 5,900.0 | 5,882.5 | 5,873.1 | 5,864.8 | 12.8 | 11.6 | -144.56 | 250.9 | -205.1 | 559.9 | 537.6 | 22.32 | 25.082 | | |
| 6,000.0 | 5,982.2 | 5,972.6 | 5,964.2 | 13.0 | 11.8 | -144.59 | 255.4 | -208.2 | 569.8 | 547.1 | 22.71 | 25.094 | | |
| 6,100.0 | 6,081.8 | 6,072.2 | 6,063.5 | 13.3 | 12.0 | -144.62 | 259.8 | -211.3 | 579.6 | 556.5 | 23.09 | 25.105 | | |
| 6,200.0 | 6,181.5 | 6,171.7 | 6,162.9 | 13.5 | 12.2 | -144.65 | 264.3 | -214.4 | 589.5 | 566.0 | 23.47 | 25.116 | | |
| 6,300.0 | 6,281.2 | 6,271.2 | 6,262.3 | 13.7 | 12.4 | -144.68 | 268.7 | -217.5 | 599.3 | 575.5 | 23.85 | 25.126 | | |
| 6,400.0 | 6,380.9 | 6,371.1 | 6,362.0 | 13.9 | 12.5 | 133.83 | 270.3 | -220.6 | 609.2 | 585.0 | 24.14 | 25.240 | | |
| 6,500.0 | 6,479.6 | 6,471.4 | 6,461.6 | 14.0 | 12.6 | 107.46 | 258.7 | -223.8 | 619.0 | 594.7 | 24.24 | 25.537 | | |
| 6,600.0 | 6,575.4 | 6,572.2 | 6,558.9 | 14.0 | 12.6 | 100.12 | 233.1 | -226.8 | 628.5 | 604.3 | 24.21 | 25.959 | | |
| 6,700.0 | 6,666.4 | 6,673.3 | 6,652.1 | 14.1 | 12.6 | 96.63 | 194.0 | -229.7 | 637.5 | 613.4 | 24.12 | 26.434 | | |
| 6,800.0 | 6,750.9 | 6,774.9 | 6,739.1 | 14.1 | 12.5 | 94.52 | 141.9 | -232.4 | 645.9 | 621.9 | 24.05 | 26.858 | | |
| 6,900.0 | 6,827.2 | 6,876.8 | 6,818.2 | 14.1 | 12.6 | 93.08 | 77.8 | -234.9 | 653.5 | 629.4 | 24.11 | 27.103 | | |
| 7,000.0 | 6,893.9 | 6,979.1 | 6,887.6 | 14.3 | 12.7 | 92.04 | 2.9 | -237.1 | 660.1 | 635.7 | 24.41 | 27.038 | | |
| 7,100.0 | 6,949.6 | 7,081.7 | 6,945.8 | 14.6 | 13.0 | 91.26 | -81.5 | -238.9 | 665.7 | 640.6 | 25.05 | 26.576 | | |
| 7,200.0 | 6,993.2 | 7,184.5 | 6,991.5 | 15.1 | 13.5 | 90.70 | -173.5 | -240.3 | 670.0 | 643.9 | 26.07 | 25.697 | | |
| 7,300.0 | 7,023.9 | 7,287.5 | 7,023.6 | 15.7 | 14.2 | 90.31 | -271.3 | -241.3 | 673.1 | 645.5 | 27.50 | 24.471 | | |
| 7,400.0 | 7,041.1 | 7,390.6 | 7,041.3 | 16.5 | 15.1 | 90.08 | -372.7 | -241.9 | 674.8 | 645.4 | 29.31 | 23.022 | | |
| 7,500.0 | 7,045.0 | 7,492.7 | 7,045.0 | 17.5 | 16.1 | 90.00 | -474.8 | -242.0 | 675.1 | 643.7 | 31.41 | 21.492 | | |
| 7,600.0 | 7,045.0 | 7,592.7 | 7,045.0 | 18.5 | 17.3 | 90.00 | -574.8 | -242.0 | 675.1 | 641.4 | 33.75 | 20.005 | | |
| 7,700.0 | 7,045.0 | 7,692.7 | 7,045.0 | 19.7 | 18.5 | 90.00 | -674.8 | -242.0 | 675.1 | 638.9 | 36.27 | 18.614 | | |
| 7,800.0 | 7,045.0 | 7,792.7 | 7,045.0 | 20.9 | 19.8 | 90.00 | -774.8 | -242.0 | 675.1 | 636.2 | 38.94 | 17.335 | | |
| 7,900.0 | 7,045.0 | 7,892.7 | 7,045.0 | 22.2 | 21.2 | 90.00 | -874.8 | -242.0 | 675.1 | 633.4 | 41.74 | 16.173 | | |
| 8,000.0 | 7,045.0 | 7,992.7 | 7,045.0 | 23.6 | 22.6 | 90.00 | -974.8 | -242.0 | 675.1 | 630.5 | 44.64 | 15.123 | | |
| 8,100.0 | 7,045.0 | 8,092.7 | 7,045.0 | 25.0 | 24.1 | 90.00 | -1,074.8 | -242.0 | 675.1 | 627.5 | 47.62 | 14.176 | | |
| 8,200.0 | 7,045.0 | 8,192.7 | 7,045.0 | 26.5 | 25.6 | 90.00 | -1,174.8 | -242.0 | 675.1 | 624.5 | 50.67 | 13.323 | | |
| 8,300.0 | 7,045.0 | 8,292.7 | 7,045.0 | 27.9 | 27.1 | 90.00 | -1,274.8 | -242.0 | 675.1 | 621.3 | 53.78 | 12.554 | | |
| 8,400.0 | 7,045.0 | 8,392.7 | 7,045.0 | 29.5 | 28.7 | 90.00 | -1,374.8 | -242.0 | 675.1 | 618.2 | 56.93 | 11.859 | | |
| 8,500.0 | 7,045.0 | 8,492.7 | 7,045.0 | 31.0 | 30.3 | 90.00 | -1,474.8 | -242.0 | 675.1 | 615.0 | 60.12 | 11.230 | | |
| 8,600.0 | 7,045.0 | 8,592.7 | 7,045.0 | 32.6 | 31.9 | 90.00 | -1,574.8 | -242.0 | 675.1 | 611.8 | 63.34 | 10.658 | | |
| 8,700.0 | 7,045.0 | 8,692.7 | 7,045.0 | 34.2 | 33.5 | 90.00 | -1,674.8 | -242.0 | 675.1 | 608.5 | 66.60 | 10.137 | | |
| 8,800.0 | 7,045.0 | 8,792.7 | 7,045.0 | 35.8 | 35.1 | 90.00 | -1,774.8 | -242.0 | 675.1 | 605.3 | 69.88 | 9.662 | | |
| 8,900.0 | 7,045.0 | 8,892.7 | 7,045.0 | 37.4 | 36.8 | 90.00 | -1,874.8 | -242.0 | 675.1 | 602.0 | 73.17 | 9.226 | | |
| 9,000.0 | 7,045.0 | 8,992.7 | 7,045.0 | 39.0 | 38.4 | 90.00 | -1,974.8 | -242.0 | 675.1 | 598.6 | 76.49 | 8.826 | | |
| 9,100.0 | 7,045.0 | 9,092.7 | 7,045.0 | 40.6 | 40.1 | 90.00 | -2,074.8 | -242.0 | 675.1 | 595.3 | 79.83 | 8.457 | | |
| 9,200.0 | 7,045.0 | 9,192.7 | 7,045.0 | 42.3 | 41.8 | 90.00 | -2,174.8 | -242.0 | 675.1 | 592.0 | 83.18 | 8.117 | | |
| 9,300.0 | 7,045.0 | 9,292.7 | 7,045.0 | 43.9 | 43.4 | 90.00 | -2,274.8 | -242.0 | 675.1 | 588.6 | 86.54 | 7.802 | | |
| 9,400.0 | 7,045.0 | 9,392.7 | 7,045.0 | 45.6 | 45.1 | 90.00 | -2,374.8 | -242.0 | 675.1 | 585.2 | 89.91 | 7.509 | | |
| 9,500.0 | 7,045.0 | 9,492.7 | 7,045.0 | 47.3 | 46.8 | 90.00 | -2,474.8 | -242.0 | 675.1 | 581.8 | 93.29 | 7.237 | | |
| 9,600.0 | 7,045.0 | 9,592.7 | 7,045.0 | 48.9 | 48.5 | 90.00 | -2,574.8 | -242.0 | 675.1 | 578.4 | 96.68 | 6.983 | | |
| 9,700.0 | 7,045.0 | 9,692.7 | 7,045.0 | 50.6 | 50.2 | 90.00 | -2,674.8 | -242.0 | 675.1 | 575.0 | 100.08 | 6.746 | | |
| 9,800.0 | 7,045.0 | 9,792.7 | 7,045.0 | 52.3 | 51.9 | 90.00 | -2,774.8 | -242.0 | 675.1 | 571.6 | 103.49 | 6.524 | | |
| 9,900.0 | 7,045.0 | 9,892.7 | 7,045.0 | 54.0 | 53.6 | 90.00 | -2,874.8 | -242.0 | 675.1 | 568.2 | 106.90 | 6.315 | | |
| 10,000.0 | 7,045.0 | 9,992.7 | 7,045.0 | 55.7 | 55.3 | 90.00 | -2,974.8 | -242.0 | 675.1 | 564.8 | 110.32 | 6.120 | | |
| 10,100.0 | 7,045.0 | 10,092.7 | 7,045.0 | 57.4 | 57.0 | 90.00 | -3,074.8 | -242.0 | 675.1 | 561.4 | 113.75 | 5.935 | | |
| 10,200.0 | 7,045.0 | 10,192.7 | 7,045.0 | 59.1 | 58.7 | 90.00 | -3,174.8 | -242.0 | 675.1 | 558.0 | 117.18 | 5.762 | | |
| 10,300.0 | 7,045.0 | 10,292.7 | 7,045.0 | 60.8 | 60.4 | 90.00 | -3,274.8 | -242.0 | 675.1 | 554.5 | 120.61 | 5.598 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | S32-T2N-R64W (Newman) - Ruhl 1A-32H-B264 - Hz - Plan #1 | | Offset Site Error: | | 0.0 ft |
|---------------------|---------------------|---------------------|---------------------|----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---|--|--------------------|--|--------|
| Survey Program: | | | | | | | | | | | | | 0-Geolink MWD | | Offset Well Error: | | 0.0 ft |
| Reference | | | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | | | | | |
| 10,400.0 | 7,045.0 | 10,392.7 | 7,045.0 | 62.5 | 62.1 | 90.00 | -3,374.8 | -242.0 | 675.1 | 551.1 | 124.05 | 5.443 | | | | | |
| 10,500.0 | 7,045.0 | 10,492.7 | 7,045.0 | 64.2 | 63.9 | 90.00 | -3,474.8 | -242.0 | 675.1 | 547.6 | 127.49 | 5.296 | | | | | |
| 10,600.0 | 7,045.0 | 10,592.7 | 7,045.0 | 65.9 | 65.6 | 90.00 | -3,574.8 | -242.0 | 675.1 | 544.2 | 130.93 | 5.156 | | | | | |
| 10,700.0 | 7,045.0 | 10,692.7 | 7,045.0 | 67.6 | 67.3 | 90.00 | -3,674.8 | -242.0 | 675.1 | 540.7 | 134.38 | 5.024 | | | | | |
| 10,800.0 | 7,045.0 | 10,792.7 | 7,045.0 | 69.3 | 69.0 | 90.00 | -3,774.8 | -242.0 | 675.1 | 537.3 | 137.84 | 4.898 | | | | | |
| 10,900.0 | 7,045.0 | 10,892.7 | 7,045.0 | 71.1 | 70.7 | 90.00 | -3,874.8 | -242.0 | 675.1 | 533.8 | 141.29 | 4.778 | | | | | |
| 11,000.0 | 7,045.0 | 10,992.7 | 7,045.0 | 72.8 | 72.5 | 90.00 | -3,974.8 | -242.0 | 675.1 | 530.4 | 144.75 | 4.664 | | | | | |
| 11,100.0 | 7,045.0 | 11,092.7 | 7,045.0 | 74.5 | 74.2 | 90.00 | -4,074.8 | -242.0 | 675.1 | 526.9 | 148.21 | 4.555 | | | | | |
| 11,200.0 | 7,045.0 | 11,192.7 | 7,045.0 | 76.2 | 75.9 | 90.00 | -4,174.8 | -242.0 | 675.1 | 523.5 | 151.67 | 4.451 | | | | | |
| 11,300.0 | 7,045.0 | 11,292.7 | 7,045.0 | 77.9 | 77.7 | 90.00 | -4,274.8 | -242.0 | 675.1 | 520.0 | 155.13 | 4.352 | | | | | |
| 11,400.0 | 7,045.0 | 11,392.7 | 7,045.0 | 79.7 | 79.4 | 90.00 | -4,374.8 | -242.0 | 675.1 | 516.5 | 158.60 | 4.257 | | | | | |
| 11,500.0 | 7,045.0 | 11,492.7 | 7,045.0 | 81.4 | 81.1 | 90.00 | -4,474.8 | -242.0 | 675.1 | 513.1 | 162.06 | 4.166 | | | | | |
| 11,546.0 | 7,045.0 | 11,538.7 | 7,045.0 | 82.2 | 81.9 | 90.00 | -4,520.7 | -242.0 | 675.1 | 511.5 | 163.66 | 4.125 | | | | | |
| 11,579.4 | 7,045.0 | 11,568.2 | 7,045.0 | 82.8 | 82.4 | 90.00 | -4,550.2 | -242.0 | 675.1 | 510.4 | 164.75 | 4.098 SF | | | | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1B-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | Total Uncertainty Axis | Separation Factor | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -89.95 | 0.0 | -20.1 | 20.1 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | -89.95 | 0.0 | -20.1 | 20.1 | 19.8 | 0.35 | 57.700 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -89.95 | 0.0 | -20.1 | 20.1 | 19.4 | 0.70 | 28.850 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -89.95 | 0.0 | -20.1 | 20.1 | 19.1 | 1.05 | 19.233 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.7 | 0.7 | -89.95 | 0.0 | -20.1 | 20.1 | 18.7 | 1.40 | 14.425 CC, ES | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 0.9 | 0.9 | -146.48 | 0.0 | -20.1 | 20.9 | 19.1 | 1.75 | 11.953 | | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.1 | 1.0 | -150.06 | 0.0 | -20.1 | 23.1 | 21.0 | 2.09 | 11.023 | | |
| 700.0 | 699.9 | 699.9 | 699.9 | 1.2 | 1.2 | -154.68 | 0.0 | -20.1 | 27.0 | 24.5 | 2.44 | 11.030 | | |
| 800.0 | 799.7 | 799.7 | 799.7 | 1.4 | 1.4 | -159.25 | 0.0 | -20.1 | 32.6 | 29.8 | 2.79 | 11.666 | | |
| 900.0 | 899.4 | 899.4 | 899.4 | 1.6 | 1.6 | -163.19 | 0.0 | -20.1 | 39.9 | 36.8 | 3.14 | 12.718 | | |
| 1,000.0 | 999.0 | 999.0 | 999.0 | 1.8 | 1.7 | -166.03 | 0.0 | -20.1 | 47.9 | 44.4 | 3.49 | 13.715 | | |
| 1,100.0 | 1,098.7 | 1,099.4 | 1,099.4 | 2.1 | 1.9 | -166.43 | 1.7 | -20.1 | 55.2 | 51.4 | 3.84 | 14.367 | | |
| 1,200.0 | 1,198.4 | 1,199.6 | 1,199.4 | 2.3 | 2.1 | -164.07 | 6.5 | -20.1 | 61.4 | 57.2 | 4.20 | 14.625 | | |
| 1,300.0 | 1,298.0 | 1,299.3 | 1,299.1 | 2.5 | 2.3 | -161.81 | 11.7 | -20.0 | 67.6 | 63.1 | 4.57 | 14.816 | | |
| 1,400.0 | 1,397.7 | 1,399.1 | 1,398.7 | 2.7 | 2.5 | -159.92 | 17.0 | -20.0 | 73.9 | 69.0 | 4.93 | 14.985 | | |
| 1,500.0 | 1,497.3 | 1,498.9 | 1,498.4 | 2.9 | 2.7 | -158.33 | 22.2 | -19.9 | 80.3 | 75.0 | 5.31 | 15.134 | | |
| 1,600.0 | 1,597.0 | 1,598.7 | 1,598.0 | 3.1 | 2.8 | -156.98 | 27.4 | -19.9 | 86.7 | 81.0 | 5.68 | 15.264 | | |
| 1,700.0 | 1,696.7 | 1,698.4 | 1,697.6 | 3.4 | 3.0 | -155.81 | 32.6 | -19.8 | 93.2 | 87.1 | 6.06 | 15.380 | | |
| 1,800.0 | 1,796.3 | 1,798.2 | 1,797.3 | 3.6 | 3.2 | -154.80 | 37.8 | -19.8 | 99.6 | 93.2 | 6.44 | 15.483 | | |
| 1,900.0 | 1,896.0 | 1,898.0 | 1,896.9 | 3.8 | 3.4 | -153.91 | 43.0 | -19.7 | 106.1 | 99.3 | 6.82 | 15.574 | | |
| 2,000.0 | 1,995.7 | 1,997.8 | 1,996.5 | 4.0 | 3.6 | -153.12 | 48.3 | -19.7 | 112.7 | 105.5 | 7.20 | 15.656 | | |
| 2,100.0 | 2,095.3 | 2,097.5 | 2,096.2 | 4.3 | 3.8 | -152.42 | 53.5 | -19.6 | 119.2 | 111.6 | 7.58 | 15.730 | | |
| 2,200.0 | 2,195.0 | 2,197.3 | 2,195.8 | 4.5 | 4.0 | -151.79 | 58.7 | -19.6 | 125.8 | 117.8 | 7.96 | 15.796 | | |
| 2,300.0 | 2,294.7 | 2,297.1 | 2,295.5 | 4.7 | 4.2 | -151.22 | 63.9 | -19.5 | 132.4 | 124.0 | 8.35 | 15.857 | | |
| 2,400.0 | 2,394.3 | 2,396.9 | 2,395.1 | 4.9 | 4.4 | -150.71 | 69.1 | -19.5 | 139.0 | 130.2 | 8.73 | 15.912 | | |
| 2,500.0 | 2,494.0 | 2,496.6 | 2,494.7 | 5.2 | 4.6 | -150.25 | 74.3 | -19.4 | 145.6 | 136.5 | 9.12 | 15.962 | | |
| 2,600.0 | 2,593.6 | 2,596.4 | 2,594.4 | 5.4 | 4.8 | -149.82 | 79.5 | -19.3 | 152.2 | 142.7 | 9.51 | 16.008 | | |
| 2,700.0 | 2,693.3 | 2,696.2 | 2,694.0 | 5.6 | 4.9 | -149.43 | 84.8 | -19.3 | 158.8 | 148.9 | 9.89 | 16.051 | | |
| 2,800.0 | 2,793.0 | 2,796.0 | 2,793.7 | 5.8 | 5.1 | -149.07 | 90.0 | -19.2 | 165.4 | 155.2 | 10.28 | 16.090 | | |
| 2,900.0 | 2,892.6 | 2,895.7 | 2,893.3 | 6.1 | 5.3 | -148.74 | 95.2 | -19.2 | 172.1 | 161.4 | 10.67 | 16.126 | | |
| 3,000.0 | 2,992.3 | 2,995.5 | 2,992.9 | 6.3 | 5.5 | -148.43 | 100.4 | -19.1 | 178.7 | 167.6 | 11.06 | 16.160 | | |
| 3,100.0 | 3,092.0 | 3,095.3 | 3,092.6 | 6.5 | 5.7 | -148.15 | 105.6 | -19.1 | 185.3 | 173.9 | 11.45 | 16.192 | | |
| 3,200.0 | 3,191.6 | 3,195.1 | 3,192.2 | 6.7 | 5.9 | -147.88 | 110.8 | -19.0 | 192.0 | 180.2 | 11.84 | 16.221 | | |
| 3,300.0 | 3,291.3 | 3,294.8 | 3,291.8 | 7.0 | 6.1 | -147.64 | 116.0 | -19.0 | 198.6 | 186.4 | 12.23 | 16.248 | | |
| 3,400.0 | 3,390.9 | 3,394.6 | 3,391.5 | 7.2 | 6.3 | -147.41 | 121.3 | -18.9 | 205.3 | 192.7 | 12.62 | 16.274 | | |
| 3,500.0 | 3,490.6 | 3,494.4 | 3,491.1 | 7.4 | 6.5 | -147.19 | 126.5 | -18.9 | 212.0 | 198.9 | 13.00 | 16.298 | | |
| 3,600.0 | 3,590.3 | 3,594.2 | 3,590.8 | 7.6 | 6.7 | -146.99 | 131.7 | -18.8 | 218.6 | 205.2 | 13.39 | 16.321 | | |
| 3,700.0 | 3,689.9 | 3,693.9 | 3,690.4 | 7.9 | 6.9 | -146.79 | 136.9 | -18.8 | 225.3 | 211.5 | 13.78 | 16.342 | | |
| 3,800.0 | 3,789.6 | 3,793.7 | 3,790.0 | 8.1 | 7.1 | -146.61 | 142.1 | -18.7 | 231.9 | 217.8 | 14.18 | 16.362 | | |
| 3,900.0 | 3,889.3 | 3,893.5 | 3,889.7 | 8.3 | 7.3 | -146.44 | 147.3 | -18.7 | 238.6 | 224.0 | 14.57 | 16.381 | | |
| 4,000.0 | 3,988.9 | 3,993.3 | 3,989.3 | 8.5 | 7.5 | -146.28 | 152.6 | -18.6 | 245.3 | 230.3 | 14.96 | 16.399 | | |
| 4,100.0 | 4,088.6 | 4,093.0 | 4,089.0 | 8.8 | 7.7 | -146.13 | 157.8 | -18.6 | 251.9 | 236.6 | 15.35 | 16.416 | | |
| 4,200.0 | 4,188.2 | 4,192.8 | 4,188.6 | 9.0 | 7.9 | -145.98 | 163.0 | -18.5 | 258.6 | 242.9 | 15.74 | 16.433 | | |
| 4,300.0 | 4,287.9 | 4,292.6 | 4,288.2 | 9.2 | 8.1 | -145.85 | 168.2 | -18.5 | 265.3 | 249.2 | 16.13 | 16.448 | | |
| 4,400.0 | 4,387.6 | 4,392.4 | 4,387.9 | 9.4 | 8.3 | -145.72 | 173.4 | -18.4 | 272.0 | 255.4 | 16.52 | 16.463 | | |
| 4,500.0 | 4,487.2 | 4,492.1 | 4,487.5 | 9.7 | 8.5 | -145.59 | 178.6 | -18.4 | 278.6 | 261.7 | 16.91 | 16.477 | | |
| 4,600.0 | 4,586.9 | 4,591.9 | 4,587.1 | 9.9 | 8.6 | -145.47 | 183.8 | -18.3 | 285.3 | 268.0 | 17.30 | 16.490 | | |
| 4,700.0 | 4,686.6 | 4,691.7 | 4,686.8 | 10.1 | 8.8 | -145.36 | 189.1 | -18.3 | 292.0 | 274.3 | 17.69 | 16.503 | | |
| 4,800.0 | 4,786.2 | 4,791.5 | 4,786.4 | 10.3 | 9.0 | -145.25 | 194.3 | -18.2 | 298.7 | 280.6 | 18.09 | 16.515 | | |
| 4,900.0 | 4,885.9 | 4,891.2 | 4,886.1 | 10.6 | 9.2 | -145.15 | 199.5 | -18.1 | 305.4 | 286.9 | 18.48 | 16.527 | | |
| 5,000.0 | 4,985.5 | 4,991.0 | 4,985.7 | 10.8 | 9.4 | -145.05 | 204.7 | -18.1 | 312.0 | 293.2 | 18.87 | 16.538 | | |
| 5,100.0 | 5,085.2 | 5,090.8 | 5,085.3 | 11.0 | 9.6 | -144.96 | 209.9 | -18.0 | 318.7 | 299.5 | 19.26 | 16.549 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1B-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|---------|--------|--------------------|--------|
| Survey Program: O-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | |
| 5,200.0 | 5,184.9 | 5,190.6 | 5,185.0 | 11.2 | 9.8 | -144.86 | 215.1 | -18.0 | 325.4 | 305.8 | 19.65 | 16.559 | | |
| 5,300.0 | 5,284.5 | 5,290.3 | 5,284.6 | 11.5 | 10.0 | -144.78 | 220.3 | -17.9 | 332.1 | 312.1 | 20.04 | 16.569 | | |
| 5,400.0 | 5,384.2 | 5,390.1 | 5,384.3 | 11.7 | 10.2 | -144.69 | 225.6 | -17.9 | 338.8 | 318.3 | 20.44 | 16.578 | | |
| 5,500.0 | 5,483.9 | 5,489.9 | 5,483.9 | 11.9 | 10.4 | -144.61 | 230.8 | -17.8 | 345.5 | 324.6 | 20.83 | 16.587 | | |
| 5,600.0 | 5,583.5 | 5,589.7 | 5,583.5 | 12.1 | 10.6 | -144.54 | 236.0 | -17.8 | 352.2 | 330.9 | 21.22 | 16.596 | | |
| 5,700.0 | 5,683.2 | 5,689.4 | 5,683.2 | 12.4 | 10.8 | -144.46 | 241.2 | -17.7 | 358.8 | 337.2 | 21.61 | 16.605 | | |
| 5,800.0 | 5,782.9 | 5,789.2 | 5,782.8 | 12.6 | 11.0 | -144.39 | 246.4 | -17.7 | 365.5 | 343.5 | 22.00 | 16.613 | | |
| 5,900.0 | 5,882.5 | 5,889.0 | 5,882.5 | 12.8 | 11.2 | -144.32 | 251.6 | -17.6 | 372.2 | 349.8 | 22.39 | 16.621 | | |
| 6,000.0 | 5,982.2 | 5,988.8 | 5,982.1 | 13.0 | 11.4 | -144.25 | 256.9 | -17.6 | 378.9 | 356.1 | 22.79 | 16.628 | | |
| 6,100.0 | 6,081.8 | 6,088.5 | 6,081.7 | 13.3 | 11.6 | -144.19 | 262.1 | -17.5 | 385.6 | 362.4 | 23.18 | 16.636 | | |
| 6,200.0 | 6,181.5 | 6,188.3 | 6,181.4 | 13.5 | 11.8 | -144.13 | 267.3 | -17.5 | 392.3 | 368.7 | 23.57 | 16.643 | | |
| 6,300.0 | 6,281.2 | 6,288.6 | 6,281.5 | 13.7 | 11.9 | -144.63 | 268.6 | -17.4 | 398.9 | 375.0 | 23.89 | 16.696 | | |
| 6,400.0 | 6,380.9 | 6,387.2 | 6,379.4 | 13.9 | 12.0 | 132.25 | 256.6 | -17.4 | 405.7 | 381.7 | 24.00 | 16.906 | | |
| 6,500.0 | 6,479.6 | 6,484.3 | 6,473.2 | 14.0 | 12.0 | 104.30 | 231.8 | -17.3 | 412.7 | 388.8 | 23.96 | 17.226 | | |
| 6,600.0 | 6,575.4 | 6,580.0 | 6,561.5 | 14.0 | 11.9 | 95.52 | 195.2 | -17.3 | 419.8 | 396.0 | 23.86 | 17.597 | | |
| 6,700.0 | 6,666.4 | 6,674.4 | 6,643.1 | 14.1 | 11.9 | 90.72 | 147.9 | -17.2 | 426.8 | 403.1 | 23.77 | 17.956 | | |
| 6,800.0 | 6,750.9 | 6,767.7 | 6,716.9 | 14.1 | 11.9 | 87.45 | 91.0 | -17.2 | 433.5 | 409.7 | 23.78 | 18.233 | | |
| 6,900.0 | 6,827.2 | 6,859.9 | 6,782.1 | 14.1 | 12.0 | 85.00 | 25.8 | -17.2 | 439.7 | 415.7 | 23.95 | 18.358 | | |
| 7,000.0 | 6,893.9 | 6,950.0 | 6,837.1 | 14.3 | 12.2 | 83.13 | -45.5 | -17.1 | 445.2 | 420.8 | 24.35 | 18.281 | | |
| 7,100.0 | 6,949.6 | 7,042.1 | 6,883.6 | 14.6 | 12.6 | 81.67 | -124.9 | -17.1 | 449.9 | 424.8 | 25.05 | 17.957 | | |
| 7,200.0 | 6,993.2 | 7,132.3 | 6,919.0 | 15.1 | 13.1 | 80.59 | -207.8 | -17.1 | 453.6 | 427.5 | 26.05 | 17.410 | | |
| 7,300.0 | 7,023.9 | 7,222.1 | 6,943.6 | 15.7 | 13.8 | 79.85 | -294.1 | -17.1 | 456.2 | 428.9 | 27.35 | 16.679 | | |
| 7,400.0 | 7,041.1 | 7,311.6 | 6,957.1 | 16.5 | 14.6 | 79.42 | -382.5 | -17.1 | 457.8 | 428.8 | 28.93 | 15.823 | | |
| 7,500.0 | 7,045.0 | 7,403.9 | 6,960.0 | 17.5 | 15.6 | 79.31 | -474.8 | -17.1 | 458.1 | 427.3 | 30.82 | 14.866 | | |
| 7,600.0 | 7,045.0 | 7,503.9 | 6,960.0 | 18.5 | 16.8 | 79.31 | -574.8 | -17.1 | 458.1 | 425.0 | 33.12 | 13.832 | | |
| 7,700.0 | 7,045.0 | 7,603.9 | 6,960.0 | 19.7 | 18.0 | 79.31 | -674.8 | -17.1 | 458.1 | 422.5 | 35.61 | 12.866 | | |
| 7,800.0 | 7,045.0 | 7,703.9 | 6,960.0 | 20.9 | 19.4 | 79.31 | -774.8 | -17.1 | 458.1 | 419.9 | 38.25 | 11.978 | | |
| 7,900.0 | 7,045.0 | 7,803.9 | 6,960.0 | 22.2 | 20.8 | 79.31 | -874.8 | -17.1 | 458.1 | 417.1 | 41.00 | 11.173 | | |
| 8,000.0 | 7,045.0 | 7,903.9 | 6,960.0 | 23.6 | 22.2 | 79.31 | -974.8 | -17.1 | 458.1 | 414.3 | 43.86 | 10.445 | | |
| 8,100.0 | 7,045.0 | 8,003.9 | 6,960.0 | 25.0 | 23.7 | 79.31 | -1,074.8 | -17.1 | 458.1 | 411.3 | 46.80 | 9.790 | | |
| 8,200.0 | 7,045.0 | 8,103.9 | 6,960.0 | 26.5 | 25.2 | 79.31 | -1,174.8 | -17.1 | 458.1 | 408.3 | 49.80 | 9.200 | | |
| 8,300.0 | 7,045.0 | 8,203.9 | 6,960.0 | 27.9 | 26.8 | 79.31 | -1,274.8 | -17.1 | 458.1 | 405.3 | 52.85 | 8.668 | | |
| 8,400.0 | 7,045.0 | 8,303.9 | 6,960.0 | 29.5 | 28.4 | 79.31 | -1,374.8 | -17.1 | 458.1 | 402.2 | 55.95 | 8.188 | | |
| 8,500.0 | 7,045.0 | 8,403.9 | 6,960.0 | 31.0 | 30.0 | 79.31 | -1,474.8 | -17.1 | 458.1 | 399.0 | 59.09 | 7.753 | | |
| 8,600.0 | 7,045.0 | 8,503.9 | 6,960.0 | 32.6 | 31.6 | 79.31 | -1,574.8 | -17.1 | 458.1 | 395.9 | 62.27 | 7.358 | | |
| 8,700.0 | 7,045.0 | 8,603.9 | 6,960.0 | 34.2 | 33.2 | 79.31 | -1,674.8 | -17.1 | 458.1 | 392.7 | 65.47 | 6.998 | | |
| 8,800.0 | 7,045.0 | 8,703.9 | 6,960.0 | 35.8 | 34.9 | 79.31 | -1,774.8 | -17.1 | 458.1 | 389.4 | 68.69 | 6.669 | | |
| 8,900.0 | 7,045.0 | 8,803.9 | 6,960.0 | 37.4 | 36.5 | 79.31 | -1,874.8 | -17.1 | 458.1 | 386.2 | 71.94 | 6.369 | | |
| 9,000.0 | 7,045.0 | 8,903.9 | 6,960.0 | 39.0 | 38.2 | 79.31 | -1,974.8 | -17.1 | 458.1 | 382.9 | 75.20 | 6.092 | | |
| 9,100.0 | 7,045.0 | 9,003.9 | 6,960.0 | 40.6 | 39.9 | 79.31 | -2,074.8 | -17.1 | 458.1 | 379.7 | 78.48 | 5.838 | | |
| 9,200.0 | 7,045.0 | 9,103.9 | 6,960.0 | 42.3 | 41.5 | 79.31 | -2,174.8 | -17.1 | 458.1 | 376.4 | 81.77 | 5.603 | | |
| 9,300.0 | 7,045.0 | 9,203.9 | 6,960.0 | 43.9 | 43.2 | 79.31 | -2,274.8 | -17.1 | 458.1 | 373.1 | 85.08 | 5.385 | | |
| 9,400.0 | 7,045.0 | 9,303.9 | 6,960.0 | 45.6 | 44.9 | 79.31 | -2,374.8 | -17.1 | 458.1 | 369.7 | 88.39 | 5.183 | | |
| 9,500.0 | 7,045.0 | 9,403.9 | 6,960.0 | 47.3 | 46.6 | 79.31 | -2,474.8 | -17.1 | 458.1 | 366.4 | 91.72 | 4.995 | | |
| 9,600.0 | 7,045.0 | 9,503.9 | 6,960.0 | 48.9 | 48.3 | 79.31 | -2,574.8 | -17.1 | 458.1 | 363.1 | 95.05 | 4.820 | | |
| 9,700.0 | 7,045.0 | 9,603.9 | 6,960.0 | 50.6 | 50.0 | 79.31 | -2,674.8 | -17.1 | 458.1 | 359.7 | 98.39 | 4.656 | | |
| 9,800.0 | 7,045.0 | 9,703.9 | 6,960.0 | 52.3 | 51.7 | 79.31 | -2,774.8 | -17.1 | 458.1 | 356.4 | 101.74 | 4.503 | | |
| 9,900.0 | 7,045.0 | 9,803.9 | 6,960.0 | 54.0 | 53.4 | 79.31 | -2,874.8 | -17.1 | 458.1 | 353.0 | 105.10 | 4.359 | | |
| 10,000.0 | 7,045.0 | 9,903.9 | 6,960.0 | 55.7 | 55.1 | 79.31 | -2,974.8 | -17.1 | 458.1 | 349.7 | 108.46 | 4.224 | | |
| 10,100.0 | 7,045.0 | 10,003.9 | 6,960.0 | 57.4 | 56.8 | 79.31 | -3,074.8 | -17.1 | 458.1 | 346.3 | 111.83 | 4.097 | | |
| 10,200.0 | 7,045.0 | 10,103.9 | 6,960.0 | 59.1 | 58.5 | 79.31 | -3,174.8 | -17.1 | 458.1 | 342.9 | 115.20 | 3.977 | | |
| 10,300.0 | 7,045.0 | 10,203.9 | 6,960.0 | 60.8 | 60.3 | 79.31 | -3,274.8 | -17.1 | 458.1 | 339.6 | 118.58 | 3.864 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | S32-T2N-R64W (Newman) - Ruhl 1B-32H-B264 - Hz - Plan #1 | | Offset Site Error: | | 0.0 ft |
|-----------------|----------------|----------------|----------------|-----------|--------|-------------------|------------------------|------------|-----------------|------------------|------------------------|-------------------|---|--|--------------------|--|--------|
| Survey Program: | | | | | | | | | | | | | 0-Geolink MWD | | Offset Well Error: | | 0.0 ft |
| Reference | | | | Offset | | Semi Major Axis | | | Distance | | | | | | | | |
| Measured Depth | Vertical Depth | Measured Depth | Vertical Depth | Reference | Offset | Highside Toolface | Offset Wellbore Centre | | Between Centres | Between Ellipses | Total Uncertainty Axis | Separation Factor | Warning | | | | |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | +N/-S (ft) | +E/-W (ft) | (ft) | (ft) | | | | | | | |
| 10,400.0 | 7,045.0 | 10,303.9 | 6,960.0 | 62.5 | 62.0 | 79.31 | -3,374.8 | -17.1 | 458.1 | 336.2 | 121.96 | 3.757 | | | | | |
| 10,500.0 | 7,045.0 | 10,403.9 | 6,960.0 | 64.2 | 63.7 | 79.31 | -3,474.8 | -17.1 | 458.1 | 332.8 | 125.34 | 3.655 | | | | | |
| 10,600.0 | 7,045.0 | 10,503.9 | 6,960.0 | 65.9 | 65.4 | 79.31 | -3,574.8 | -17.1 | 458.1 | 329.4 | 128.73 | 3.559 | | | | | |
| 10,700.0 | 7,045.0 | 10,603.9 | 6,960.0 | 67.6 | 67.1 | 79.31 | -3,674.8 | -17.1 | 458.1 | 326.0 | 132.12 | 3.468 | | | | | |
| 10,800.0 | 7,045.0 | 10,703.9 | 6,960.0 | 69.3 | 68.9 | 79.31 | -3,774.8 | -17.1 | 458.1 | 322.6 | 135.51 | 3.381 | | | | | |
| 10,900.0 | 7,045.0 | 10,803.9 | 6,960.0 | 71.1 | 70.6 | 79.31 | -3,874.8 | -17.1 | 458.1 | 319.2 | 138.91 | 3.298 | | | | | |
| 11,000.0 | 7,045.0 | 10,903.9 | 6,960.0 | 72.8 | 72.3 | 79.31 | -3,974.8 | -17.1 | 458.1 | 315.8 | 142.30 | 3.219 | | | | | |
| 11,100.0 | 7,045.0 | 11,003.9 | 6,960.0 | 74.5 | 74.1 | 79.31 | -4,074.8 | -17.1 | 458.1 | 312.4 | 145.70 | 3.144 | | | | | |
| 11,200.0 | 7,045.0 | 11,103.9 | 6,960.0 | 76.2 | 75.8 | 79.31 | -4,174.8 | -17.1 | 458.1 | 309.0 | 149.11 | 3.073 | | | | | |
| 11,300.0 | 7,045.0 | 11,203.9 | 6,960.0 | 77.9 | 77.5 | 79.31 | -4,274.8 | -17.1 | 458.1 | 305.6 | 152.51 | 3.004 | | | | | |
| 11,400.0 | 7,045.0 | 11,303.9 | 6,960.0 | 79.7 | 79.3 | 79.31 | -4,374.8 | -17.1 | 458.1 | 302.2 | 155.92 | 2.938 | | | | | |
| 11,500.0 | 7,045.0 | 11,403.9 | 6,960.0 | 81.4 | 81.0 | 79.31 | -4,474.8 | -17.1 | 458.1 | 298.8 | 159.33 | 2.875 | | | | | |
| 11,546.5 | 7,045.0 | 11,450.4 | 6,960.0 | 82.2 | 81.8 | 79.31 | -4,521.3 | -17.1 | 458.1 | 297.2 | 160.91 | 2.847 | | | | | |
| 11,579.4 | 7,045.0 | 11,480.8 | 6,960.0 | 82.8 | 82.3 | 79.31 | -4,551.6 | -17.1 | 458.1 | 296.1 | 161.99 | 2.828 SF | | | | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1C-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|---------|--------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -89.95 | 0.0 | -10.1 | 10.1 | 10.1 | 0.00 | N/A | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | -89.95 | 0.0 | -10.1 | 10.1 | 9.7 | 0.35 | 28.850 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -89.95 | 0.0 | -10.1 | 10.1 | 9.4 | 0.70 | 14.425 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -89.95 | 0.0 | -10.1 | 10.1 | 9.0 | 1.05 | 9.617 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.7 | 0.7 | -89.95 | 0.0 | -10.1 | 10.1 | 8.7 | 1.40 | 7.213 CC, ES | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 0.9 | 0.9 | -147.76 | 0.0 | -10.1 | 10.8 | 9.1 | 1.75 | 6.187 | | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.1 | 1.0 | -153.88 | 0.0 | -10.1 | 13.1 | 11.0 | 2.09 | 6.248 | | |
| 700.0 | 699.9 | 700.1 | 700.1 | 1.2 | 1.2 | -158.40 | 0.7 | -9.6 | 16.4 | 14.0 | 2.44 | 6.728 | | |
| 800.0 | 799.7 | 800.3 | 800.2 | 1.4 | 1.4 | -159.89 | 2.8 | -8.0 | 20.2 | 17.4 | 2.80 | 7.210 | | |
| 900.0 | 899.4 | 900.5 | 900.3 | 1.6 | 1.6 | -159.63 | 6.4 | -5.5 | 24.1 | 20.9 | 3.15 | 7.645 | | |
| 1,000.0 | 999.0 | 1,000.5 | 1,000.2 | 1.8 | 1.8 | -157.94 | 11.0 | -2.1 | 27.4 | 23.9 | 3.51 | 7.800 | | |
| 1,100.0 | 1,098.7 | 1,100.5 | 1,100.0 | 2.1 | 2.0 | -156.50 | 15.8 | 1.3 | 30.6 | 26.8 | 3.88 | 7.905 | | |
| 1,200.0 | 1,198.4 | 1,200.4 | 1,199.8 | 2.3 | 2.2 | -155.33 | 20.5 | 4.7 | 33.9 | 29.7 | 4.25 | 7.990 | | |
| 1,300.0 | 1,298.0 | 1,300.4 | 1,299.6 | 2.5 | 2.3 | -154.37 | 25.2 | 8.1 | 37.2 | 32.6 | 4.62 | 8.060 | | |
| 1,400.0 | 1,397.7 | 1,400.3 | 1,399.3 | 2.7 | 2.5 | -153.57 | 29.9 | 11.5 | 40.5 | 35.5 | 4.99 | 8.118 | | |
| 1,500.0 | 1,497.3 | 1,500.3 | 1,499.1 | 2.9 | 2.7 | -152.89 | 34.7 | 14.9 | 43.8 | 38.4 | 5.36 | 8.167 | | |
| 1,600.0 | 1,597.0 | 1,600.2 | 1,598.9 | 3.1 | 2.9 | -152.30 | 39.4 | 18.3 | 47.1 | 41.4 | 5.74 | 8.208 | | |
| 1,700.0 | 1,696.7 | 1,700.1 | 1,698.7 | 3.4 | 3.1 | -151.79 | 44.1 | 21.7 | 50.4 | 44.3 | 6.12 | 8.243 | | |
| 1,800.0 | 1,796.3 | 1,800.1 | 1,798.4 | 3.6 | 3.3 | -151.34 | 48.8 | 25.1 | 53.7 | 47.2 | 6.49 | 8.273 | | |
| 1,900.0 | 1,896.0 | 1,900.0 | 1,898.2 | 3.8 | 3.5 | -150.95 | 53.5 | 28.5 | 57.0 | 50.2 | 6.87 | 8.299 | | |
| 2,000.0 | 1,995.7 | 2,000.0 | 1,998.0 | 4.0 | 3.7 | -150.59 | 58.3 | 31.9 | 60.4 | 53.1 | 7.25 | 8.322 | | |
| 2,100.0 | 2,095.3 | 2,099.9 | 2,097.8 | 4.3 | 3.9 | -150.28 | 63.0 | 35.3 | 63.7 | 56.0 | 7.63 | 8.343 | | |
| 2,200.0 | 2,195.0 | 2,199.9 | 2,197.5 | 4.5 | 4.1 | -150.00 | 67.7 | 38.7 | 67.0 | 59.0 | 8.01 | 8.361 | | |
| 2,300.0 | 2,294.7 | 2,299.8 | 2,297.3 | 4.7 | 4.3 | -149.74 | 72.4 | 42.1 | 70.3 | 61.9 | 8.40 | 8.377 | | |
| 2,400.0 | 2,394.3 | 2,399.8 | 2,397.1 | 4.9 | 4.5 | -149.50 | 77.2 | 45.5 | 73.6 | 64.9 | 8.78 | 8.391 | | |
| 2,500.0 | 2,494.0 | 2,499.7 | 2,496.9 | 5.2 | 4.7 | -149.29 | 81.9 | 48.9 | 77.0 | 67.8 | 9.16 | 8.404 | | |
| 2,600.0 | 2,593.6 | 2,599.6 | 2,596.6 | 5.4 | 4.9 | -149.09 | 86.6 | 52.3 | 80.3 | 70.8 | 9.54 | 8.416 | | |
| 2,700.0 | 2,693.3 | 2,699.6 | 2,696.4 | 5.6 | 5.1 | -148.91 | 91.3 | 55.7 | 83.6 | 73.7 | 9.92 | 8.427 | | |
| 2,800.0 | 2,793.0 | 2,799.5 | 2,796.2 | 5.8 | 5.3 | -148.75 | 96.0 | 59.1 | 87.0 | 76.7 | 10.31 | 8.436 | | |
| 2,900.0 | 2,892.6 | 2,899.5 | 2,896.0 | 6.1 | 5.5 | -148.59 | 100.8 | 62.5 | 90.3 | 79.6 | 10.69 | 8.445 | | |
| 3,000.0 | 2,992.3 | 2,999.4 | 2,995.7 | 6.3 | 5.7 | -148.45 | 105.5 | 65.9 | 93.6 | 82.5 | 11.07 | 8.453 | | |
| 3,100.0 | 3,092.0 | 3,099.4 | 3,095.5 | 6.5 | 5.9 | -148.32 | 110.2 | 69.3 | 96.9 | 85.5 | 11.46 | 8.461 | | |
| 3,200.0 | 3,191.6 | 3,199.3 | 3,195.3 | 6.7 | 6.1 | -148.19 | 114.9 | 72.7 | 100.3 | 88.4 | 11.84 | 8.468 | | |
| 3,300.0 | 3,291.3 | 3,299.3 | 3,295.1 | 7.0 | 6.3 | -148.08 | 119.6 | 76.1 | 103.6 | 91.4 | 12.23 | 8.474 | | |
| 3,400.0 | 3,390.9 | 3,399.2 | 3,394.8 | 7.2 | 6.5 | -147.97 | 124.4 | 79.5 | 106.9 | 94.3 | 12.61 | 8.480 | | |
| 3,500.0 | 3,490.6 | 3,499.1 | 3,494.6 | 7.4 | 6.7 | -147.86 | 129.1 | 82.9 | 110.3 | 97.3 | 12.99 | 8.486 | | |
| 3,600.0 | 3,590.3 | 3,599.1 | 3,594.4 | 7.6 | 6.9 | -147.77 | 133.8 | 86.3 | 113.6 | 100.2 | 13.38 | 8.491 | | |
| 3,700.0 | 3,689.9 | 3,699.0 | 3,694.2 | 7.9 | 7.1 | -147.68 | 138.5 | 89.7 | 116.9 | 103.2 | 13.76 | 8.496 | | |
| 3,800.0 | 3,789.6 | 3,799.0 | 3,793.9 | 8.1 | 7.3 | -147.59 | 143.3 | 93.1 | 120.3 | 106.1 | 14.15 | 8.501 | | |
| 3,900.0 | 3,889.3 | 3,898.9 | 3,893.7 | 8.3 | 7.5 | -147.51 | 148.0 | 96.4 | 123.6 | 109.1 | 14.53 | 8.505 | | |
| 4,000.0 | 3,988.9 | 3,998.9 | 3,993.5 | 8.5 | 7.7 | -147.43 | 152.7 | 99.8 | 126.9 | 112.0 | 14.92 | 8.509 | | |
| 4,100.0 | 4,088.6 | 4,098.8 | 4,093.2 | 8.8 | 7.9 | -147.36 | 157.4 | 103.2 | 130.3 | 115.0 | 15.30 | 8.513 | | |
| 4,200.0 | 4,188.2 | 4,198.7 | 4,193.0 | 9.0 | 8.1 | -147.29 | 162.1 | 106.6 | 133.6 | 117.9 | 15.69 | 8.516 | | |
| 4,300.0 | 4,287.9 | 4,298.7 | 4,292.8 | 9.2 | 8.3 | -147.22 | 166.9 | 110.0 | 136.9 | 120.9 | 16.07 | 8.520 | | |
| 4,400.0 | 4,387.6 | 4,398.6 | 4,392.6 | 9.4 | 8.5 | -147.16 | 171.6 | 113.4 | 140.3 | 123.8 | 16.46 | 8.523 | | |
| 4,500.0 | 4,487.2 | 4,498.6 | 4,492.3 | 9.7 | 8.7 | -147.10 | 176.3 | 116.8 | 143.6 | 126.8 | 16.84 | 8.526 | | |
| 4,600.0 | 4,586.9 | 4,598.5 | 4,592.1 | 9.9 | 8.9 | -147.04 | 181.0 | 120.2 | 146.9 | 129.7 | 17.23 | 8.529 | | |
| 4,700.0 | 4,686.6 | 4,698.5 | 4,691.9 | 10.1 | 9.1 | -146.99 | 185.7 | 123.6 | 150.3 | 132.7 | 17.61 | 8.531 | | |
| 4,800.0 | 4,786.2 | 4,798.4 | 4,791.7 | 10.3 | 9.3 | -146.93 | 190.5 | 127.0 | 153.6 | 135.6 | 18.00 | 8.534 | | |
| 4,900.0 | 4,885.9 | 4,898.4 | 4,891.4 | 10.6 | 9.5 | -146.88 | 195.2 | 130.4 | 156.9 | 138.6 | 18.38 | 8.537 | | |
| 5,000.0 | 4,985.5 | 4,998.3 | 4,991.2 | 10.8 | 9.7 | -146.83 | 199.9 | 133.8 | 160.3 | 141.5 | 18.77 | 8.539 | | |
| 5,100.0 | 5,085.2 | 5,098.2 | 5,091.0 | 11.0 | 9.9 | -146.79 | 204.6 | 137.2 | 163.6 | 144.5 | 19.16 | 8.541 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1C-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | | |
| 5,200.0 | 5,184.9 | 5,198.2 | 5,190.8 | 11.2 | 10.2 | -146.74 | 209.4 | 140.6 | 166.9 | 147.4 | 19.54 | 8.543 | | |
| 5,300.0 | 5,284.5 | 5,298.1 | 5,290.5 | 11.5 | 10.4 | -146.70 | 214.1 | 144.0 | 170.3 | 150.4 | 19.93 | 8.545 | | |
| 5,400.0 | 5,384.2 | 5,398.1 | 5,390.3 | 11.7 | 10.6 | -146.66 | 218.8 | 147.4 | 173.6 | 153.3 | 20.31 | 8.547 | | |
| 5,500.0 | 5,483.9 | 5,498.0 | 5,490.1 | 11.9 | 10.8 | -146.62 | 223.5 | 150.8 | 177.0 | 156.3 | 20.70 | 8.549 | | |
| 5,600.0 | 5,583.5 | 5,598.0 | 5,589.9 | 12.1 | 11.0 | -146.58 | 228.2 | 154.2 | 180.3 | 159.2 | 21.08 | 8.551 | | |
| 5,700.0 | 5,683.2 | 5,697.9 | 5,689.6 | 12.4 | 11.2 | -146.55 | 233.0 | 157.6 | 183.6 | 162.2 | 21.47 | 8.553 | | |
| 5,800.0 | 5,782.9 | 5,797.9 | 5,789.4 | 12.6 | 11.4 | -146.51 | 237.7 | 161.0 | 187.0 | 165.1 | 21.86 | 8.554 | | |
| 5,900.0 | 5,882.5 | 5,897.8 | 5,889.2 | 12.8 | 11.6 | -146.48 | 242.4 | 164.4 | 190.3 | 168.1 | 22.24 | 8.556 | | |
| 6,000.0 | 5,982.2 | 5,997.7 | 5,989.0 | 13.0 | 11.8 | -146.44 | 247.1 | 167.8 | 193.6 | 171.0 | 22.63 | 8.558 | | |
| 6,100.0 | 6,081.8 | 6,097.7 | 6,088.7 | 13.3 | 12.0 | -146.41 | 251.8 | 171.2 | 197.0 | 174.0 | 23.01 | 8.559 | | |
| 6,200.0 | 6,181.5 | 6,197.6 | 6,188.5 | 13.5 | 12.2 | -146.38 | 256.6 | 174.6 | 200.3 | 176.9 | 23.40 | 8.560 | | |
| 6,300.0 | 6,281.2 | 6,297.6 | 6,288.3 | 13.7 | 12.4 | -146.35 | 261.3 | 178.0 | 203.6 | 179.9 | 23.78 | 8.562 | | |
| 6,400.0 | 6,380.9 | 6,397.3 | 6,387.9 | 13.9 | 12.6 | 133.83 | 266.0 | 181.4 | 206.9 | 182.7 | 24.20 | 8.552 | | |
| 6,500.0 | 6,479.6 | 6,497.0 | 6,487.4 | 14.0 | 12.7 | 112.00 | 267.8 | 184.8 | 210.9 | 186.2 | 24.66 | 8.554 | | |
| 6,600.0 | 6,575.4 | 6,599.1 | 6,588.8 | 14.0 | 12.8 | 109.23 | 256.3 | 188.3 | 216.0 | 191.1 | 24.87 | 8.685 | | |
| 6,700.0 | 6,666.4 | 6,703.8 | 6,689.8 | 14.1 | 12.8 | 109.99 | 229.6 | 191.7 | 222.1 | 197.2 | 24.83 | 8.942 | | |
| 6,800.0 | 6,750.9 | 6,811.2 | 6,788.3 | 14.1 | 12.8 | 111.71 | 187.3 | 195.1 | 228.7 | 204.1 | 24.58 | 9.304 | | |
| 6,900.0 | 6,827.2 | 6,921.2 | 6,881.5 | 14.1 | 12.8 | 113.64 | 129.1 | 198.2 | 235.5 | 211.3 | 24.22 | 9.722 | | |
| 7,000.0 | 6,893.9 | 7,033.8 | 6,966.5 | 14.3 | 12.8 | 115.46 | 55.5 | 201.1 | 242.0 | 218.1 | 23.92 | 10.120 | | |
| 7,100.0 | 6,949.6 | 7,148.7 | 7,040.4 | 14.6 | 13.1 | 117.03 | -32.4 | 203.6 | 248.0 | 224.1 | 23.86 | 10.390 | | |
| 7,200.0 | 6,993.2 | 7,265.8 | 7,100.1 | 15.1 | 13.5 | 118.25 | -132.9 | 205.7 | 252.9 | 228.6 | 24.26 | 10.421 | | |
| 7,300.0 | 7,023.9 | 7,384.4 | 7,143.2 | 15.7 | 14.2 | 119.11 | -243.2 | 207.1 | 256.4 | 231.2 | 25.26 | 10.153 | | |
| 7,400.0 | 7,041.1 | 7,504.1 | 7,167.6 | 16.5 | 15.2 | 119.56 | -360.3 | 208.0 | 258.4 | 231.5 | 26.89 | 9.610 | | |
| 7,500.0 | 7,045.0 | 7,618.8 | 7,173.0 | 17.5 | 16.3 | 119.64 | -474.8 | 208.2 | 258.8 | 229.8 | 28.99 | 8.929 | | |
| 7,600.0 | 7,045.0 | 7,718.8 | 7,173.0 | 18.5 | 17.5 | 119.64 | -574.8 | 208.2 | 258.8 | 227.8 | 30.98 | 8.354 | | |
| 7,700.0 | 7,045.0 | 7,818.8 | 7,173.0 | 19.7 | 18.7 | 119.64 | -674.8 | 208.2 | 258.8 | 225.7 | 33.14 | 7.811 | | |
| 7,800.0 | 7,045.0 | 7,918.8 | 7,173.0 | 20.9 | 20.0 | 119.64 | -774.8 | 208.2 | 258.8 | 223.4 | 35.42 | 7.306 | | |
| 7,900.0 | 7,045.0 | 8,018.8 | 7,173.0 | 22.2 | 21.4 | 119.64 | -874.8 | 208.2 | 258.8 | 221.0 | 37.82 | 6.843 | | |
| 8,000.0 | 7,045.0 | 8,118.8 | 7,173.0 | 23.6 | 22.8 | 119.64 | -974.8 | 208.2 | 258.8 | 218.5 | 40.31 | 6.421 | | |
| 8,100.0 | 7,045.0 | 8,218.8 | 7,173.0 | 25.0 | 24.2 | 119.64 | -1,074.8 | 208.2 | 258.8 | 215.9 | 42.87 | 6.038 | | |
| 8,200.0 | 7,045.0 | 8,318.8 | 7,173.0 | 26.5 | 25.7 | 119.64 | -1,174.8 | 208.2 | 258.8 | 213.3 | 45.49 | 5.690 | | |
| 8,300.0 | 7,045.0 | 8,418.8 | 7,173.0 | 27.9 | 27.3 | 119.64 | -1,274.8 | 208.2 | 258.8 | 210.7 | 48.16 | 5.374 | | |
| 8,400.0 | 7,045.0 | 8,518.8 | 7,173.0 | 29.5 | 28.8 | 119.64 | -1,374.8 | 208.2 | 258.8 | 207.9 | 50.88 | 5.087 | | |
| 8,500.0 | 7,045.0 | 8,618.8 | 7,173.0 | 31.0 | 30.4 | 119.64 | -1,474.8 | 208.2 | 258.8 | 205.2 | 53.63 | 4.826 | | |
| 8,600.0 | 7,045.0 | 8,718.8 | 7,173.0 | 32.6 | 32.0 | 119.64 | -1,574.8 | 208.2 | 258.8 | 202.4 | 56.41 | 4.588 | | |
| 8,700.0 | 7,045.0 | 8,818.8 | 7,173.0 | 34.2 | 33.6 | 119.64 | -1,674.8 | 208.2 | 258.8 | 199.6 | 59.22 | 4.370 | | |
| 8,800.0 | 7,045.0 | 8,918.8 | 7,173.0 | 35.8 | 35.2 | 119.64 | -1,774.8 | 208.2 | 258.8 | 196.8 | 62.06 | 4.171 | | |
| 8,900.0 | 7,045.0 | 9,018.8 | 7,173.0 | 37.4 | 36.9 | 119.64 | -1,874.8 | 208.2 | 258.8 | 193.9 | 64.91 | 3.987 | | |
| 9,000.0 | 7,045.0 | 9,118.8 | 7,173.0 | 39.0 | 38.5 | 119.64 | -1,974.8 | 208.2 | 258.8 | 191.0 | 67.78 | 3.818 | | |
| 9,100.0 | 7,045.0 | 9,218.8 | 7,173.0 | 40.6 | 40.2 | 119.64 | -2,074.8 | 208.2 | 258.8 | 188.1 | 70.67 | 3.662 | | |
| 9,200.0 | 7,045.0 | 9,318.8 | 7,173.0 | 42.3 | 41.8 | 119.64 | -2,174.8 | 208.2 | 258.8 | 185.2 | 73.57 | 3.518 | | |
| 9,300.0 | 7,045.0 | 9,418.8 | 7,173.0 | 43.9 | 43.5 | 119.64 | -2,274.8 | 208.2 | 258.8 | 182.3 | 76.48 | 3.384 | | |
| 9,400.0 | 7,045.0 | 9,518.8 | 7,173.0 | 45.6 | 45.2 | 119.64 | -2,374.8 | 208.2 | 258.8 | 179.4 | 79.40 | 3.260 | | |
| 9,500.0 | 7,045.0 | 9,618.8 | 7,173.0 | 47.3 | 46.9 | 119.64 | -2,474.8 | 208.2 | 258.8 | 176.5 | 82.33 | 3.143 | | |
| 9,600.0 | 7,045.0 | 9,718.8 | 7,173.0 | 48.9 | 48.6 | 119.64 | -2,574.8 | 208.2 | 258.8 | 173.5 | 85.28 | 3.035 | | |
| 9,700.0 | 7,045.0 | 9,818.8 | 7,173.0 | 50.6 | 50.3 | 119.64 | -2,674.8 | 208.2 | 258.8 | 170.6 | 88.22 | 2.934 | | |
| 9,800.0 | 7,045.0 | 9,918.8 | 7,173.0 | 52.3 | 52.0 | 119.64 | -2,774.8 | 208.2 | 258.8 | 167.6 | 91.18 | 2.839 | | |
| 9,900.0 | 7,045.0 | 10,018.8 | 7,173.0 | 54.0 | 53.7 | 119.64 | -2,874.8 | 208.2 | 258.8 | 164.7 | 94.14 | 2.749 | | |
| 10,000.0 | 7,045.0 | 10,118.8 | 7,173.0 | 55.7 | 55.4 | 119.64 | -2,974.8 | 208.2 | 258.8 | 161.7 | 97.11 | 2.665 | | |
| 10,100.0 | 7,045.0 | 10,218.8 | 7,173.0 | 57.4 | 57.1 | 119.64 | -3,074.8 | 208.2 | 258.8 | 158.7 | 100.08 | 2.586 | | |
| 10,200.0 | 7,045.0 | 10,318.8 | 7,173.0 | 59.1 | 58.8 | 119.64 | -3,174.8 | 208.2 | 258.8 | 155.8 | 103.06 | 2.511 | | |
| 10,300.0 | 7,045.0 | 10,418.8 | 7,173.0 | 60.8 | 60.5 | 119.64 | -3,274.8 | 208.2 | 258.8 | 152.8 | 106.04 | 2.441 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1C-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | | |
| 10,400.0 | 7,045.0 | 10,518.8 | 7,173.0 | 62.5 | 62.2 | 119.64 | -3,374.8 | 208.2 | 258.8 | 149.8 | 109.03 | 2.374 | | |
| 10,500.0 | 7,045.0 | 10,618.8 | 7,173.0 | 64.2 | 63.9 | 119.64 | -3,474.8 | 208.2 | 258.8 | 146.8 | 112.02 | 2.310 | | |
| 10,600.0 | 7,045.0 | 10,718.8 | 7,173.0 | 65.9 | 65.6 | 119.64 | -3,574.8 | 208.2 | 258.8 | 143.8 | 115.01 | 2.250 | | |
| 10,700.0 | 7,045.0 | 10,818.8 | 7,173.0 | 67.6 | 67.4 | 119.64 | -3,674.8 | 208.2 | 258.8 | 140.8 | 118.01 | 2.193 | | |
| 10,800.0 | 7,045.0 | 10,918.8 | 7,173.0 | 69.3 | 69.1 | 119.64 | -3,774.8 | 208.2 | 258.8 | 137.8 | 121.01 | 2.139 | | |
| 10,900.0 | 7,045.0 | 11,018.8 | 7,173.0 | 71.1 | 70.8 | 119.64 | -3,874.8 | 208.2 | 258.8 | 134.8 | 124.01 | 2.087 | | |
| 11,000.0 | 7,045.0 | 11,118.8 | 7,173.0 | 72.8 | 72.5 | 119.64 | -3,974.8 | 208.2 | 258.8 | 131.8 | 127.02 | 2.038 | | |
| 11,100.0 | 7,045.0 | 11,218.8 | 7,173.0 | 74.5 | 74.3 | 119.64 | -4,074.8 | 208.2 | 258.8 | 128.8 | 130.03 | 1.991 | | |
| 11,200.0 | 7,045.0 | 11,318.8 | 7,173.0 | 76.2 | 76.0 | 119.64 | -4,174.8 | 208.2 | 258.8 | 125.8 | 133.04 | 1.945 | | |
| 11,300.0 | 7,045.0 | 11,418.8 | 7,173.0 | 77.9 | 77.7 | 119.64 | -4,274.8 | 208.2 | 258.8 | 122.8 | 136.05 | 1.902 | | |
| 11,400.0 | 7,045.0 | 11,518.8 | 7,173.0 | 79.7 | 79.4 | 119.64 | -4,374.8 | 208.2 | 258.8 | 119.8 | 139.06 | 1.861 | | |
| 11,500.0 | 7,045.0 | 11,618.8 | 7,173.0 | 81.4 | 81.2 | 119.64 | -4,474.8 | 208.2 | 258.8 | 116.7 | 142.07 | 1.822 | | |
| 11,546.9 | 7,045.0 | 11,665.7 | 7,173.0 | 82.2 | 82.0 | 119.64 | -4,521.7 | 208.2 | 258.8 | 115.3 | 143.49 | 1.804 | | |
| 11,579.4 | 7,045.0 | 11,696.8 | 7,173.0 | 82.8 | 82.5 | 119.64 | -4,552.7 | 208.2 | 258.8 | 114.4 | 144.45 | 1.792 SF | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1E-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|---------|----------|--------------------|--------|
| Survey Program: O-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 92.03 | -0.3 | 9.8 | 9.8 | 9.8 | 0.00 | N/A | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | 92.03 | -0.3 | 9.8 | 9.8 | 9.4 | 0.35 | 28.066 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | 92.03 | -0.3 | 9.8 | 9.8 | 9.1 | 0.70 | 14.033 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | 92.03 | -0.3 | 9.8 | 9.8 | 8.7 | 1.05 | 9.355 | | |
| 333.5 | 333.5 | 333.5 | 333.5 | 0.6 | 0.6 | 92.03 | -0.3 | 9.8 | 9.8 | 8.6 | 1.16 | 8.416 CC | | |
| 400.0 | 400.0 | 399.9 | 399.9 | 0.7 | 0.7 | 91.47 | -0.3 | 10.0 | 10.0 | 8.6 | 1.40 | 7.157 ES | | |
| 500.0 | 500.0 | 499.8 | 499.7 | 0.9 | 0.9 | 34.94 | 0.5 | 11.6 | 10.9 | 9.1 | 1.75 | 6.218 | | |
| 600.0 | 600.0 | 599.6 | 599.5 | 1.1 | 1.1 | 35.05 | 1.9 | 14.7 | 11.9 | 9.8 | 2.10 | 5.660 | | |
| 700.0 | 699.9 | 699.4 | 699.2 | 1.2 | 1.2 | 36.30 | 4.1 | 19.4 | 13.0 | 10.6 | 2.45 | 5.315 | | |
| 800.0 | 799.7 | 799.1 | 798.7 | 1.4 | 1.4 | 38.36 | 7.1 | 25.7 | 14.4 | 11.5 | 2.81 | 5.102 | | |
| 900.0 | 899.4 | 898.9 | 898.1 | 1.6 | 1.7 | 40.78 | 10.7 | 33.6 | 15.9 | 12.7 | 3.19 | 4.994 | | |
| 1,000.0 | 999.0 | 998.6 | 997.2 | 1.8 | 1.9 | 40.78 | 15.1 | 43.0 | 18.7 | 15.1 | 3.57 | 5.231 | | |
| 1,100.0 | 1,098.7 | 1,098.5 | 1,096.5 | 2.1 | 2.1 | 39.62 | 19.9 | 53.3 | 22.2 | 18.2 | 3.95 | 5.617 | | |
| 1,200.0 | 1,198.4 | 1,198.5 | 1,195.8 | 2.3 | 2.4 | 38.78 | 24.6 | 63.5 | 25.7 | 21.4 | 4.33 | 5.936 | | |
| 1,300.0 | 1,298.0 | 1,298.4 | 1,295.1 | 2.5 | 2.6 | 38.14 | 29.4 | 73.8 | 29.2 | 24.5 | 4.71 | 6.203 | | |
| 1,400.0 | 1,397.7 | 1,398.4 | 1,394.4 | 2.7 | 2.9 | 37.64 | 34.1 | 84.0 | 32.7 | 27.6 | 5.09 | 6.431 | | |
| 1,500.0 | 1,497.3 | 1,498.3 | 1,493.7 | 2.9 | 3.1 | 37.23 | 38.9 | 94.3 | 36.2 | 30.8 | 5.47 | 6.626 | | |
| 1,600.0 | 1,597.0 | 1,598.2 | 1,593.0 | 3.1 | 3.4 | 36.90 | 43.7 | 104.5 | 39.8 | 33.9 | 5.85 | 6.796 | | |
| 1,700.0 | 1,696.7 | 1,698.2 | 1,692.3 | 3.4 | 3.6 | 36.62 | 48.4 | 114.7 | 43.3 | 37.0 | 6.23 | 6.945 | | |
| 1,800.0 | 1,796.3 | 1,798.1 | 1,791.6 | 3.6 | 3.9 | 36.38 | 53.2 | 125.0 | 46.8 | 40.2 | 6.61 | 7.076 | | |
| 1,900.0 | 1,896.0 | 1,898.0 | 1,890.9 | 3.8 | 4.2 | 36.18 | 57.9 | 135.2 | 50.3 | 43.3 | 7.00 | 7.194 | | |
| 2,000.0 | 1,995.7 | 1,998.0 | 1,990.2 | 4.0 | 4.4 | 36.00 | 62.7 | 145.5 | 53.8 | 46.5 | 7.38 | 7.299 | | |
| 2,100.0 | 2,095.3 | 2,097.9 | 2,089.5 | 4.3 | 4.7 | 35.84 | 67.5 | 155.7 | 57.4 | 49.6 | 7.76 | 7.393 | | |
| 2,200.0 | 2,195.0 | 2,197.9 | 2,188.8 | 4.5 | 4.9 | 35.71 | 72.2 | 165.9 | 60.9 | 52.8 | 8.14 | 7.479 | | |
| 2,300.0 | 2,294.7 | 2,297.8 | 2,288.1 | 4.7 | 5.2 | 35.58 | 77.0 | 176.2 | 64.4 | 55.9 | 8.52 | 7.557 | | |
| 2,400.0 | 2,394.3 | 2,397.7 | 2,387.4 | 4.9 | 5.5 | 35.47 | 81.7 | 186.4 | 67.9 | 59.0 | 8.91 | 7.628 | | |
| 2,500.0 | 2,494.0 | 2,497.7 | 2,486.7 | 5.2 | 5.7 | 35.38 | 86.5 | 196.7 | 71.5 | 62.2 | 9.29 | 7.693 | | |
| 2,600.0 | 2,593.6 | 2,597.6 | 2,586.0 | 5.4 | 6.0 | 35.29 | 91.3 | 206.9 | 75.0 | 65.3 | 9.67 | 7.753 | | |
| 2,700.0 | 2,693.3 | 2,697.6 | 2,685.3 | 5.6 | 6.2 | 35.20 | 96.0 | 217.2 | 78.5 | 68.5 | 10.06 | 7.809 | | |
| 2,800.0 | 2,793.0 | 2,797.5 | 2,784.6 | 5.8 | 6.5 | 35.13 | 100.8 | 227.4 | 82.0 | 71.6 | 10.44 | 7.860 | | |
| 2,900.0 | 2,892.6 | 2,897.4 | 2,883.9 | 6.1 | 6.8 | 35.06 | 105.5 | 237.6 | 85.6 | 74.7 | 10.82 | 7.908 | | |
| 3,000.0 | 2,992.3 | 2,997.4 | 2,983.2 | 6.3 | 7.0 | 35.00 | 110.3 | 247.9 | 89.1 | 77.9 | 11.20 | 7.952 | | |
| 3,100.0 | 3,092.0 | 3,097.3 | 3,082.5 | 6.5 | 7.3 | 34.94 | 115.1 | 258.1 | 92.6 | 81.0 | 11.59 | 7.994 | | |
| 3,200.0 | 3,191.6 | 3,197.2 | 3,181.8 | 6.7 | 7.6 | 34.89 | 119.8 | 268.4 | 96.1 | 84.2 | 11.97 | 8.032 | | |
| 3,300.0 | 3,291.3 | 3,297.2 | 3,281.1 | 7.0 | 7.8 | 34.84 | 124.6 | 278.6 | 99.7 | 87.3 | 12.35 | 8.069 | | |
| 3,400.0 | 3,390.9 | 3,397.1 | 3,380.4 | 7.2 | 8.1 | 34.79 | 129.3 | 288.9 | 103.2 | 90.5 | 12.74 | 8.103 | | |
| 3,500.0 | 3,490.6 | 3,497.1 | 3,479.7 | 7.4 | 8.3 | 34.75 | 134.1 | 299.1 | 106.7 | 93.6 | 13.12 | 8.135 | | |
| 3,600.0 | 3,590.3 | 3,597.0 | 3,579.0 | 7.6 | 8.6 | 34.71 | 138.8 | 309.3 | 110.2 | 96.7 | 13.50 | 8.165 | | |
| 3,700.0 | 3,689.9 | 3,696.9 | 3,678.3 | 7.9 | 8.9 | 34.67 | 143.6 | 319.6 | 113.8 | 99.9 | 13.89 | 8.194 | | |
| 3,800.0 | 3,789.6 | 3,796.9 | 3,777.6 | 8.1 | 9.1 | 34.63 | 148.4 | 329.8 | 117.3 | 103.0 | 14.27 | 8.221 | | |
| 3,900.0 | 3,889.3 | 3,896.8 | 3,876.9 | 8.3 | 9.4 | 34.60 | 153.1 | 340.1 | 120.8 | 106.2 | 14.65 | 8.247 | | |
| 4,000.0 | 3,988.9 | 3,996.7 | 3,976.2 | 8.5 | 9.7 | 34.57 | 157.9 | 350.3 | 124.4 | 109.3 | 15.03 | 8.271 | | |
| 4,100.0 | 4,088.6 | 4,096.7 | 4,075.5 | 8.8 | 9.9 | 34.54 | 162.6 | 360.5 | 127.9 | 112.5 | 15.42 | 8.294 | | |
| 4,200.0 | 4,188.2 | 4,196.6 | 4,174.7 | 9.0 | 10.2 | 34.51 | 167.4 | 370.8 | 131.4 | 115.6 | 15.80 | 8.316 | | |
| 4,300.0 | 4,287.9 | 4,296.6 | 4,274.0 | 9.2 | 10.4 | 34.48 | 172.2 | 381.0 | 134.9 | 118.7 | 16.18 | 8.337 | | |
| 4,400.0 | 4,387.6 | 4,396.5 | 4,373.3 | 9.4 | 10.7 | 34.45 | 176.9 | 391.3 | 138.5 | 121.9 | 16.57 | 8.357 | | |
| 4,500.0 | 4,487.2 | 4,496.4 | 4,472.6 | 9.7 | 11.0 | 34.43 | 181.7 | 401.5 | 142.0 | 125.0 | 16.95 | 8.376 | | |
| 4,600.0 | 4,586.9 | 4,596.4 | 4,571.9 | 9.9 | 11.2 | 34.41 | 186.4 | 411.8 | 145.5 | 128.2 | 17.33 | 8.395 | | |
| 4,700.0 | 4,686.6 | 4,696.3 | 4,671.2 | 10.1 | 11.5 | 34.38 | 191.2 | 422.0 | 149.0 | 131.3 | 17.72 | 8.412 | | |
| 4,800.0 | 4,786.2 | 4,796.2 | 4,770.5 | 10.3 | 11.8 | 34.36 | 196.0 | 432.2 | 152.6 | 134.5 | 18.10 | 8.429 | | |
| 4,900.0 | 4,885.9 | 4,896.2 | 4,869.8 | 10.6 | 12.0 | 34.34 | 200.7 | 442.5 | 156.1 | 137.6 | 18.48 | 8.445 | | |
| 5,000.0 | 4,985.5 | 4,996.1 | 4,969.1 | 10.8 | 12.3 | 34.32 | 205.5 | 452.7 | 159.6 | 140.8 | 18.87 | 8.460 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1E-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|--------------------|---------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Distance | | | | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | Warning |
| 5,100.0 | 5,085.2 | 5,096.1 | 5,068.4 | 11.0 | 12.6 | 34.30 | 210.2 | 463.0 | 163.1 | 143.9 | 19.25 | 8.475 | |
| 5,200.0 | 5,184.9 | 5,196.0 | 5,167.7 | 11.2 | 12.8 | 34.29 | 215.0 | 473.2 | 166.7 | 147.0 | 19.63 | 8.489 | |
| 5,300.0 | 5,284.5 | 5,295.9 | 5,267.0 | 11.5 | 13.1 | 34.27 | 219.8 | 483.4 | 170.2 | 150.2 | 20.02 | 8.503 | |
| 5,400.0 | 5,384.2 | 5,395.9 | 5,366.3 | 11.7 | 13.3 | 34.25 | 224.5 | 493.7 | 173.7 | 153.3 | 20.40 | 8.516 | |
| 5,500.0 | 5,483.9 | 5,495.8 | 5,465.6 | 11.9 | 13.6 | 34.24 | 229.3 | 503.9 | 177.3 | 156.5 | 20.78 | 8.528 | |
| 5,600.0 | 5,583.5 | 5,595.7 | 5,564.9 | 12.1 | 13.9 | 34.22 | 234.0 | 514.2 | 180.8 | 159.6 | 21.17 | 8.541 | |
| 5,700.0 | 5,683.2 | 5,695.7 | 5,664.2 | 12.4 | 14.1 | 34.21 | 238.8 | 524.4 | 184.3 | 162.8 | 21.55 | 8.552 | |
| 5,800.0 | 5,782.9 | 5,795.6 | 5,763.5 | 12.6 | 14.4 | 34.20 | 243.5 | 534.7 | 187.8 | 165.9 | 21.93 | 8.564 | |
| 5,900.0 | 5,882.5 | 5,895.6 | 5,862.8 | 12.8 | 14.7 | 34.18 | 248.3 | 544.9 | 191.4 | 169.0 | 22.32 | 8.575 | |
| 6,000.0 | 5,982.2 | 5,995.5 | 5,962.1 | 13.0 | 14.9 | 34.17 | 253.1 | 555.1 | 194.9 | 172.2 | 22.70 | 8.585 | |
| 6,100.0 | 6,081.8 | 6,095.4 | 6,061.4 | 13.3 | 15.2 | 34.16 | 257.8 | 565.4 | 198.4 | 175.3 | 23.08 | 8.595 | |
| 6,200.0 | 6,181.5 | 6,195.4 | 6,160.7 | 13.5 | 15.5 | 34.14 | 262.6 | 575.6 | 201.9 | 178.5 | 23.47 | 8.605 | |
| 6,300.0 | 6,281.2 | 6,295.4 | 6,260.1 | 13.7 | 15.7 | 34.56 | 265.8 | 585.9 | 205.5 | 181.6 | 23.88 | 8.605 | |
| 6,400.0 | 6,380.9 | 6,394.4 | 6,358.2 | 13.9 | 15.9 | -43.90 | 257.3 | 596.0 | 209.1 | 184.8 | 24.39 | 8.575 | |
| 6,500.0 | 6,479.6 | 6,492.3 | 6,453.1 | 14.0 | 16.0 | -67.22 | 235.5 | 605.8 | 213.1 | 188.4 | 24.69 | 8.631 | |
| 6,600.0 | 6,575.4 | 6,589.2 | 6,543.1 | 14.0 | 16.1 | -71.71 | 201.4 | 615.1 | 217.2 | 192.5 | 24.77 | 8.770 | |
| 6,700.0 | 6,666.4 | 6,685.1 | 6,627.0 | 14.1 | 16.1 | -72.59 | 155.9 | 623.7 | 221.4 | 196.7 | 24.67 | 8.976 | |
| 6,800.0 | 6,750.9 | 6,780.1 | 6,703.5 | 14.1 | 16.2 | -72.37 | 100.1 | 631.6 | 225.4 | 201.0 | 24.45 | 9.221 | |
| 6,900.0 | 6,827.2 | 6,874.4 | 6,771.4 | 14.1 | 16.3 | -71.77 | 35.2 | 638.6 | 229.2 | 205.0 | 24.21 | 9.468 | |
| 7,000.0 | 6,893.9 | 6,968.0 | 6,829.8 | 14.3 | 16.6 | -71.07 | -37.6 | 644.6 | 232.6 | 208.4 | 24.18 | 9.619 | |
| 7,100.0 | 6,949.6 | 7,061.1 | 6,878.1 | 14.6 | 16.9 | -70.43 | -116.9 | 649.6 | 235.5 | 211.1 | 24.43 | 9.640 | |
| 7,200.0 | 6,993.2 | 7,153.7 | 6,915.6 | 15.1 | 17.3 | -69.90 | -201.5 | 653.5 | 237.8 | 212.7 | 25.12 | 9.465 | |
| 7,300.0 | 7,023.9 | 7,246.1 | 6,941.9 | 15.7 | 17.9 | -69.53 | -289.9 | 656.2 | 239.4 | 213.0 | 26.34 | 9.088 | |
| 7,400.0 | 7,041.1 | 7,338.3 | 6,956.6 | 16.5 | 18.5 | -69.33 | -380.8 | 657.7 | 240.3 | 212.2 | 28.10 | 8.552 | |
| 7,500.0 | 7,045.0 | 7,432.3 | 6,960.0 | 17.5 | 19.3 | -69.30 | -474.8 | 658.1 | 240.5 | 210.2 | 30.23 | 7.955 | |
| 7,600.0 | 7,045.0 | 7,532.3 | 6,960.0 | 18.5 | 20.3 | -69.30 | -574.8 | 658.1 | 240.5 | 208.1 | 32.39 | 7.424 | |
| 7,700.0 | 7,045.0 | 7,632.3 | 6,960.0 | 19.7 | 21.3 | -69.30 | -674.8 | 658.1 | 240.5 | 205.7 | 34.73 | 6.924 | |
| 7,800.0 | 7,045.0 | 7,732.3 | 6,960.0 | 20.9 | 22.5 | -69.30 | -774.8 | 658.1 | 240.5 | 203.3 | 37.21 | 6.463 | |
| 7,900.0 | 7,045.0 | 7,832.3 | 6,960.0 | 22.2 | 23.7 | -69.30 | -874.8 | 658.1 | 240.5 | 200.7 | 39.81 | 6.041 | |
| 8,000.0 | 7,045.0 | 7,932.3 | 6,960.0 | 23.6 | 25.0 | -69.30 | -974.8 | 658.1 | 240.5 | 198.0 | 42.50 | 5.658 | |
| 8,100.0 | 7,045.0 | 8,032.3 | 6,960.0 | 25.0 | 26.3 | -69.30 | -1,074.8 | 658.1 | 240.5 | 195.2 | 45.27 | 5.312 | |
| 8,200.0 | 7,045.0 | 8,132.3 | 6,960.0 | 26.5 | 27.7 | -69.30 | -1,174.8 | 658.1 | 240.5 | 192.4 | 48.11 | 4.999 | |
| 8,300.0 | 7,045.0 | 8,232.3 | 6,960.0 | 27.9 | 29.1 | -69.30 | -1,274.8 | 658.1 | 240.5 | 189.5 | 50.99 | 4.716 | |
| 8,400.0 | 7,045.0 | 8,332.3 | 6,960.0 | 29.5 | 30.6 | -69.30 | -1,374.8 | 658.1 | 240.5 | 186.5 | 53.93 | 4.459 | |
| 8,500.0 | 7,045.0 | 8,432.3 | 6,960.0 | 31.0 | 32.1 | -69.30 | -1,474.8 | 658.1 | 240.5 | 183.6 | 56.90 | 4.226 | |
| 8,600.0 | 7,045.0 | 8,532.3 | 6,960.0 | 32.6 | 33.6 | -69.30 | -1,574.8 | 658.1 | 240.5 | 180.6 | 59.91 | 4.014 | |
| 8,700.0 | 7,045.0 | 8,632.3 | 6,960.0 | 34.2 | 35.1 | -69.30 | -1,674.8 | 658.1 | 240.5 | 177.5 | 62.94 | 3.821 | |
| 8,800.0 | 7,045.0 | 8,732.3 | 6,960.0 | 35.8 | 36.7 | -69.30 | -1,774.8 | 658.1 | 240.5 | 174.5 | 66.00 | 3.644 | |
| 8,900.0 | 7,045.0 | 8,832.3 | 6,960.0 | 37.4 | 38.3 | -69.30 | -1,874.8 | 658.1 | 240.5 | 171.4 | 69.08 | 3.481 | |
| 9,000.0 | 7,045.0 | 8,932.3 | 6,960.0 | 39.0 | 39.9 | -69.30 | -1,974.8 | 658.1 | 240.5 | 168.3 | 72.17 | 3.332 | |
| 9,100.0 | 7,045.0 | 9,032.3 | 6,960.0 | 40.6 | 41.5 | -69.30 | -2,074.8 | 658.1 | 240.5 | 165.2 | 75.29 | 3.194 | |
| 9,200.0 | 7,045.0 | 9,132.3 | 6,960.0 | 42.3 | 43.1 | -69.30 | -2,174.8 | 658.1 | 240.5 | 162.1 | 78.41 | 3.067 | |
| 9,300.0 | 7,045.0 | 9,232.3 | 6,960.0 | 43.9 | 44.7 | -69.30 | -2,274.8 | 658.1 | 240.5 | 158.9 | 81.55 | 2.949 | |
| 9,400.0 | 7,045.0 | 9,332.3 | 6,960.0 | 45.6 | 46.3 | -69.30 | -2,374.8 | 658.1 | 240.5 | 155.8 | 84.70 | 2.839 | |
| 9,500.0 | 7,045.0 | 9,432.3 | 6,960.0 | 47.3 | 48.0 | -69.30 | -2,474.8 | 658.1 | 240.5 | 152.6 | 87.86 | 2.737 | |
| 9,600.0 | 7,045.0 | 9,532.3 | 6,960.0 | 48.9 | 49.6 | -69.30 | -2,574.8 | 658.1 | 240.5 | 149.4 | 91.03 | 2.642 | |
| 9,700.0 | 7,045.0 | 9,632.3 | 6,960.0 | 50.6 | 51.3 | -69.30 | -2,674.8 | 658.1 | 240.5 | 146.3 | 94.21 | 2.553 | |
| 9,800.0 | 7,045.0 | 9,732.3 | 6,960.0 | 52.3 | 52.9 | -69.30 | -2,774.8 | 658.1 | 240.5 | 143.1 | 97.39 | 2.469 | |
| 9,900.0 | 7,045.0 | 9,832.3 | 6,960.0 | 54.0 | 54.6 | -69.30 | -2,874.8 | 658.1 | 240.5 | 139.9 | 100.58 | 2.391 | |
| 10,000.0 | 7,045.0 | 9,932.3 | 6,960.0 | 55.7 | 56.3 | -69.30 | -2,974.8 | 658.1 | 240.5 | 136.7 | 103.78 | 2.317 | |
| 10,100.0 | 7,045.0 | 10,032.3 | 6,960.0 | 57.4 | 58.0 | -69.30 | -3,074.8 | 658.1 | 240.5 | 133.5 | 106.98 | 2.248 | |
| 10,200.0 | 7,045.0 | 10,132.3 | 6,960.0 | 59.1 | 59.6 | -69.30 | -3,174.8 | 658.1 | 240.5 | 130.3 | 110.18 | 2.182 | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1E-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: 0.0 ft | |
|---|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---------------------------|---------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | | |
| 10,300.0 | 7,045.0 | 10,232.3 | 6,960.0 | 60.8 | 61.3 | -69.30 | -3,274.8 | 658.1 | 240.5 | 127.1 | 113.40 | 2.121 | | |
| 10,400.0 | 7,045.0 | 10,332.3 | 6,960.0 | 62.5 | 63.0 | -69.30 | -3,374.8 | 658.1 | 240.5 | 123.9 | 116.61 | 2.062 | | |
| 10,500.0 | 7,045.0 | 10,432.3 | 6,960.0 | 64.2 | 64.7 | -69.30 | -3,474.8 | 658.1 | 240.5 | 120.6 | 119.83 | 2.007 | | |
| 10,600.0 | 7,045.0 | 10,532.3 | 6,960.0 | 65.9 | 66.4 | -69.30 | -3,574.8 | 658.1 | 240.5 | 117.4 | 123.05 | 1.954 | | |
| 10,700.0 | 7,045.0 | 10,632.3 | 6,960.0 | 67.6 | 68.1 | -69.30 | -3,674.8 | 658.1 | 240.5 | 114.2 | 126.28 | 1.904 | | |
| 10,800.0 | 7,045.0 | 10,732.3 | 6,960.0 | 69.3 | 69.8 | -69.30 | -3,774.8 | 658.1 | 240.5 | 111.0 | 129.51 | 1.857 | | |
| 10,900.0 | 7,045.0 | 10,832.3 | 6,960.0 | 71.1 | 71.5 | -69.30 | -3,874.8 | 658.1 | 240.5 | 107.7 | 132.74 | 1.812 | | |
| 11,000.0 | 7,045.0 | 10,932.3 | 6,960.0 | 72.8 | 73.2 | -69.30 | -3,974.8 | 658.1 | 240.5 | 104.5 | 135.97 | 1.769 | | |
| 11,100.0 | 7,045.0 | 11,032.3 | 6,960.0 | 74.5 | 74.9 | -69.30 | -4,074.8 | 658.1 | 240.5 | 101.3 | 139.21 | 1.727 | | |
| 11,200.0 | 7,045.0 | 11,132.3 | 6,960.0 | 76.2 | 76.6 | -69.30 | -4,174.8 | 658.1 | 240.5 | 98.0 | 142.44 | 1.688 | | |
| 11,300.0 | 7,045.0 | 11,232.3 | 6,960.0 | 77.9 | 78.4 | -69.30 | -4,274.8 | 658.1 | 240.5 | 94.8 | 145.69 | 1.651 | | |
| 11,400.0 | 7,045.0 | 11,332.3 | 6,960.0 | 79.7 | 80.1 | -69.30 | -4,374.8 | 658.1 | 240.5 | 91.5 | 148.93 | 1.615 | | |
| 11,500.0 | 7,045.0 | 11,432.3 | 6,960.0 | 81.4 | 81.8 | -69.30 | -4,474.8 | 658.1 | 240.5 | 88.3 | 152.17 | 1.580 | | |
| 11,579.4 | 7,045.0 | 11,511.7 | 6,960.0 | 82.8 | 83.2 | -69.30 | -4,554.2 | 658.1 | 240.5 | 85.7 | 154.75 | 1.554 SF | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1F-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|---------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 90.98 | -0.3 | 19.9 | 19.9 | 19.9 | 0.00 | N/A | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | 90.98 | -0.3 | 19.9 | 19.9 | 19.5 | 0.35 | 56.907 | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | 90.98 | -0.3 | 19.9 | 19.9 | 19.2 | 0.70 | 28.453 CC, ES | |
| 300.0 | 300.0 | 299.7 | 299.7 | 0.5 | 0.5 | 90.16 | -0.1 | 20.7 | 20.7 | 19.6 | 1.05 | 19.757 | |
| 400.0 | 400.0 | 399.3 | 399.2 | 0.7 | 0.7 | 88.04 | 0.8 | 23.1 | 23.2 | 21.8 | 1.40 | 16.578 | |
| 500.0 | 500.0 | 498.8 | 498.7 | 0.9 | 0.9 | 31.14 | 2.2 | 27.2 | 26.6 | 24.9 | 1.74 | 15.244 | |
| 600.0 | 600.0 | 598.3 | 597.9 | 1.1 | 1.1 | 30.64 | 4.2 | 32.9 | 30.2 | 28.1 | 2.10 | 14.425 | |
| 700.0 | 699.9 | 697.6 | 697.0 | 1.2 | 1.3 | 30.99 | 6.7 | 40.3 | 34.0 | 31.6 | 2.45 | 13.898 | |
| 800.0 | 799.7 | 797.0 | 795.9 | 1.4 | 1.5 | 31.93 | 9.8 | 49.2 | 38.0 | 35.2 | 2.81 | 13.543 | |
| 900.0 | 899.4 | 896.2 | 894.5 | 1.6 | 1.8 | 33.23 | 13.4 | 59.8 | 42.3 | 39.1 | 3.17 | 13.316 | |
| 1,000.0 | 999.0 | 995.3 | 992.8 | 1.8 | 2.0 | 33.94 | 17.6 | 72.0 | 47.8 | 44.3 | 3.55 | 13.482 | |
| 1,100.0 | 1,098.7 | 1,095.1 | 1,091.6 | 2.1 | 2.3 | 34.24 | 22.1 | 84.9 | 54.1 | 50.2 | 3.92 | 13.795 | |
| 1,200.0 | 1,198.4 | 1,194.9 | 1,190.5 | 2.3 | 2.6 | 34.47 | 26.6 | 97.9 | 60.4 | 56.1 | 4.30 | 14.047 | |
| 1,300.0 | 1,298.0 | 1,294.7 | 1,289.4 | 2.5 | 2.9 | 34.67 | 31.1 | 110.9 | 66.7 | 62.0 | 4.68 | 14.253 | |
| 1,400.0 | 1,397.7 | 1,394.5 | 1,388.2 | 2.7 | 3.2 | 34.83 | 35.5 | 123.9 | 73.0 | 67.9 | 5.06 | 14.424 | |
| 1,500.0 | 1,497.3 | 1,494.4 | 1,487.1 | 2.9 | 3.5 | 34.96 | 40.0 | 136.8 | 79.3 | 73.8 | 5.44 | 14.569 | |
| 1,600.0 | 1,597.0 | 1,594.2 | 1,585.9 | 3.1 | 3.8 | 35.08 | 44.5 | 149.8 | 85.5 | 79.7 | 5.82 | 14.692 | |
| 1,700.0 | 1,696.7 | 1,694.0 | 1,684.8 | 3.4 | 4.1 | 35.17 | 48.9 | 162.8 | 91.8 | 85.6 | 6.21 | 14.799 | |
| 1,800.0 | 1,796.3 | 1,793.8 | 1,783.6 | 3.6 | 4.3 | 35.26 | 53.4 | 175.7 | 98.1 | 91.5 | 6.59 | 14.892 | |
| 1,900.0 | 1,896.0 | 1,893.6 | 1,882.5 | 3.8 | 4.6 | 35.34 | 57.9 | 188.7 | 104.4 | 97.5 | 6.97 | 14.973 | |
| 2,000.0 | 1,995.7 | 1,993.4 | 1,981.3 | 4.0 | 4.9 | 35.40 | 62.4 | 201.7 | 110.7 | 103.4 | 7.36 | 15.046 | |
| 2,100.0 | 2,095.3 | 2,093.2 | 2,080.2 | 4.3 | 5.2 | 35.46 | 66.8 | 214.7 | 117.0 | 109.3 | 7.74 | 15.110 | |
| 2,200.0 | 2,195.0 | 2,193.0 | 2,179.0 | 4.5 | 5.5 | 35.52 | 71.3 | 227.6 | 123.3 | 115.2 | 8.13 | 15.168 | |
| 2,300.0 | 2,294.7 | 2,292.8 | 2,277.9 | 4.7 | 5.8 | 35.57 | 75.8 | 240.6 | 129.6 | 121.1 | 8.52 | 15.220 | |
| 2,400.0 | 2,394.3 | 2,392.6 | 2,376.7 | 4.9 | 6.1 | 35.61 | 80.3 | 253.6 | 135.9 | 127.0 | 8.90 | 15.267 | |
| 2,500.0 | 2,494.0 | 2,492.4 | 2,475.6 | 5.2 | 6.4 | 35.65 | 84.7 | 266.6 | 142.2 | 132.9 | 9.29 | 15.309 | |
| 2,600.0 | 2,593.6 | 2,592.2 | 2,574.5 | 5.4 | 6.7 | 35.69 | 89.2 | 279.5 | 148.5 | 138.8 | 9.67 | 15.348 | |
| 2,700.0 | 2,693.3 | 2,692.0 | 2,673.3 | 5.6 | 7.0 | 35.72 | 93.7 | 292.5 | 154.8 | 144.7 | 10.06 | 15.384 | |
| 2,800.0 | 2,793.0 | 2,791.8 | 2,772.2 | 5.8 | 7.3 | 35.75 | 98.2 | 305.5 | 161.1 | 150.6 | 10.45 | 15.417 | |
| 2,900.0 | 2,892.6 | 2,891.6 | 2,871.0 | 6.1 | 7.6 | 35.78 | 102.6 | 318.4 | 167.4 | 156.5 | 10.83 | 15.448 | |
| 3,000.0 | 2,992.3 | 2,991.4 | 2,969.9 | 6.3 | 7.9 | 35.81 | 107.1 | 331.4 | 173.7 | 162.4 | 11.22 | 15.476 | |
| 3,100.0 | 3,092.0 | 3,091.2 | 3,068.7 | 6.5 | 8.2 | 35.83 | 111.6 | 344.4 | 179.9 | 168.3 | 11.61 | 15.502 | |
| 3,200.0 | 3,191.6 | 3,191.0 | 3,167.6 | 6.7 | 8.5 | 35.85 | 116.1 | 357.4 | 186.2 | 174.2 | 12.00 | 15.526 | |
| 3,300.0 | 3,291.3 | 3,290.8 | 3,266.4 | 7.0 | 8.8 | 35.88 | 120.5 | 370.3 | 192.5 | 180.2 | 12.38 | 15.549 | |
| 3,400.0 | 3,390.9 | 3,390.6 | 3,365.3 | 7.2 | 9.1 | 35.90 | 125.0 | 383.3 | 198.8 | 186.1 | 12.77 | 15.570 | |
| 3,500.0 | 3,490.6 | 3,490.4 | 3,464.1 | 7.4 | 9.4 | 35.92 | 129.5 | 396.3 | 205.1 | 192.0 | 13.16 | 15.590 | |
| 3,600.0 | 3,590.3 | 3,590.2 | 3,563.0 | 7.6 | 9.7 | 35.93 | 134.0 | 409.3 | 211.4 | 197.9 | 13.54 | 15.609 | |
| 3,700.0 | 3,689.9 | 3,690.0 | 3,661.8 | 7.9 | 10.0 | 35.95 | 138.4 | 422.2 | 217.7 | 203.8 | 13.93 | 15.627 | |
| 3,800.0 | 3,789.6 | 3,789.8 | 3,760.7 | 8.1 | 10.3 | 35.97 | 142.9 | 435.2 | 224.0 | 209.7 | 14.32 | 15.643 | |
| 3,900.0 | 3,889.3 | 3,889.6 | 3,859.6 | 8.3 | 10.6 | 35.98 | 147.4 | 448.2 | 230.3 | 215.6 | 14.71 | 15.659 | |
| 4,000.0 | 3,988.9 | 3,989.4 | 3,958.4 | 8.5 | 10.9 | 36.00 | 151.9 | 461.1 | 236.6 | 221.5 | 15.10 | 15.674 | |
| 4,100.0 | 4,088.6 | 4,089.2 | 4,057.3 | 8.8 | 11.2 | 36.01 | 156.3 | 474.1 | 242.9 | 227.4 | 15.48 | 15.688 | |
| 4,200.0 | 4,188.2 | 4,189.0 | 4,156.1 | 9.0 | 11.5 | 36.02 | 160.8 | 487.1 | 249.2 | 233.3 | 15.87 | 15.701 | |
| 4,300.0 | 4,287.9 | 4,288.8 | 4,255.0 | 9.2 | 11.7 | 36.03 | 165.3 | 500.1 | 255.5 | 239.2 | 16.26 | 15.713 | |
| 4,400.0 | 4,387.6 | 4,388.6 | 4,353.8 | 9.4 | 12.0 | 36.05 | 169.8 | 513.0 | 261.8 | 245.1 | 16.65 | 15.725 | |
| 4,500.0 | 4,487.2 | 4,488.4 | 4,452.7 | 9.7 | 12.3 | 36.06 | 174.2 | 526.0 | 268.1 | 251.0 | 17.03 | 15.737 | |
| 4,600.0 | 4,586.9 | 4,588.2 | 4,551.5 | 9.9 | 12.6 | 36.07 | 178.7 | 539.0 | 274.4 | 256.9 | 17.42 | 15.748 | |
| 4,700.0 | 4,686.6 | 4,688.0 | 4,650.4 | 10.1 | 12.9 | 36.08 | 183.2 | 552.0 | 280.7 | 262.8 | 17.81 | 15.758 | |
| 4,800.0 | 4,786.2 | 4,787.8 | 4,749.2 | 10.3 | 13.2 | 36.09 | 187.6 | 564.9 | 286.9 | 268.7 | 18.20 | 15.768 | |
| 4,900.0 | 4,885.9 | 4,887.6 | 4,848.1 | 10.6 | 13.5 | 36.10 | 192.1 | 577.9 | 293.2 | 274.7 | 18.59 | 15.778 | |
| 5,000.0 | 4,985.5 | 4,987.4 | 4,946.9 | 10.8 | 13.8 | 36.10 | 196.6 | 590.9 | 299.5 | 280.6 | 18.97 | 15.787 | |
| 5,100.0 | 5,085.2 | 5,087.2 | 5,045.8 | 11.0 | 14.1 | 36.11 | 201.1 | 603.8 | 305.8 | 286.5 | 19.36 | 15.795 | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1F-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|---------|--------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | |
| 5,200.0 | 5,184.9 | 5,187.0 | 5,144.6 | 11.2 | 14.4 | 36.12 | 205.5 | 616.8 | 312.1 | 292.4 | 19.75 | 15.804 | | |
| 5,300.0 | 5,284.5 | 5,286.8 | 5,243.5 | 11.5 | 14.7 | 36.13 | 210.0 | 629.8 | 318.4 | 298.3 | 20.14 | 15.812 | | |
| 5,400.0 | 5,384.2 | 5,386.6 | 5,342.4 | 11.7 | 15.0 | 36.14 | 214.5 | 642.8 | 324.7 | 304.2 | 20.53 | 15.819 | | |
| 5,500.0 | 5,483.9 | 5,486.4 | 5,441.2 | 11.9 | 15.3 | 36.14 | 219.0 | 655.7 | 331.0 | 310.1 | 20.91 | 15.827 | | |
| 5,600.0 | 5,583.5 | 5,586.2 | 5,540.1 | 12.1 | 15.6 | 36.15 | 223.4 | 668.7 | 337.3 | 316.0 | 21.30 | 15.834 | | |
| 5,700.0 | 5,683.2 | 5,686.0 | 5,638.9 | 12.4 | 15.9 | 36.16 | 227.9 | 681.7 | 343.6 | 321.9 | 21.69 | 15.841 | | |
| 5,800.0 | 5,782.9 | 5,785.8 | 5,737.8 | 12.6 | 16.2 | 36.16 | 232.4 | 694.7 | 349.9 | 327.8 | 22.08 | 15.847 | | |
| 5,900.0 | 5,882.5 | 5,885.6 | 5,836.6 | 12.8 | 16.5 | 36.17 | 236.9 | 707.6 | 356.2 | 333.7 | 22.47 | 15.854 | | |
| 6,000.0 | 5,982.2 | 5,985.4 | 5,935.5 | 13.0 | 16.8 | 36.18 | 241.3 | 720.6 | 362.5 | 339.6 | 22.86 | 15.860 | | |
| 6,100.0 | 6,081.8 | 6,085.2 | 6,034.3 | 13.3 | 17.1 | 36.18 | 245.8 | 733.6 | 368.8 | 345.5 | 23.24 | 15.866 | | |
| 6,200.0 | 6,181.5 | 6,185.0 | 6,133.2 | 13.5 | 17.4 | 36.19 | 250.3 | 746.6 | 375.1 | 351.4 | 23.63 | 15.871 | | |
| 6,300.0 | 6,281.2 | 6,284.8 | 6,232.0 | 13.7 | 17.7 | 36.19 | 254.8 | 759.5 | 381.4 | 357.3 | 24.02 | 15.877 | | |
| 6,400.0 | 6,380.9 | 6,384.5 | 6,330.7 | 13.9 | 18.0 | -45.11 | 259.2 | 772.5 | 387.5 | 363.2 | 24.31 | 15.941 | | |
| 6,500.0 | 6,479.6 | 6,482.5 | 6,427.8 | 14.0 | 18.3 | -73.05 | 263.6 | 785.2 | 393.9 | 369.7 | 24.27 | 16.233 | | |
| 6,600.0 | 6,575.4 | 6,582.4 | 6,526.8 | 14.0 | 18.5 | -82.89 | 261.6 | 798.2 | 401.6 | 377.5 | 24.04 | 16.702 | | |
| 6,700.0 | 6,666.4 | 6,686.3 | 6,628.4 | 14.1 | 18.7 | -88.78 | 244.8 | 811.5 | 410.5 | 386.6 | 23.85 | 17.209 | | |
| 6,800.0 | 6,750.9 | 6,794.6 | 6,730.5 | 14.1 | 18.9 | -93.15 | 211.7 | 824.9 | 420.2 | 396.5 | 23.78 | 17.673 | | |
| 6,900.0 | 6,827.2 | 6,907.5 | 6,830.4 | 14.1 | 19.0 | -96.65 | 161.1 | 838.1 | 430.4 | 406.5 | 23.89 | 18.013 | | |
| 7,000.0 | 6,893.9 | 7,025.3 | 6,924.9 | 14.3 | 19.2 | -99.53 | 92.2 | 850.5 | 440.4 | 416.1 | 24.25 | 18.159 | | |
| 7,100.0 | 6,949.6 | 7,147.8 | 7,010.0 | 14.6 | 19.4 | -101.85 | 4.8 | 861.6 | 449.6 | 424.7 | 24.87 | 18.075 | | |
| 7,200.0 | 6,993.2 | 7,274.9 | 7,081.3 | 15.1 | 19.8 | -103.66 | -99.7 | 871.0 | 457.4 | 431.6 | 25.81 | 17.723 | | |
| 7,300.0 | 7,023.9 | 7,405.7 | 7,134.4 | 15.7 | 20.4 | -104.94 | -218.8 | 877.9 | 463.3 | 436.3 | 27.04 | 17.133 | | |
| 7,400.0 | 7,041.1 | 7,539.2 | 7,165.6 | 16.5 | 21.1 | -105.68 | -348.4 | 882.0 | 466.9 | 438.3 | 28.57 | 16.338 | | |
| 7,500.0 | 7,045.0 | 7,665.9 | 7,173.0 | 17.5 | 22.0 | -105.88 | -474.8 | 883.0 | 467.8 | 437.3 | 30.44 | 15.366 | | |
| 7,600.0 | 7,045.0 | 7,765.9 | 7,173.0 | 18.5 | 22.9 | -105.88 | -574.8 | 883.0 | 467.8 | 435.1 | 32.70 | 14.306 | | |
| 7,700.0 | 7,045.0 | 7,865.9 | 7,173.0 | 19.7 | 23.8 | -105.88 | -674.8 | 883.0 | 467.8 | 432.6 | 35.13 | 13.316 | | |
| 7,800.0 | 7,045.0 | 7,965.9 | 7,173.0 | 20.9 | 24.9 | -105.88 | -774.8 | 883.0 | 467.8 | 430.1 | 37.70 | 12.407 | | |
| 7,900.0 | 7,045.0 | 8,065.9 | 7,173.0 | 22.2 | 26.0 | -105.88 | -874.8 | 883.0 | 467.8 | 427.4 | 40.39 | 11.580 | | |
| 8,000.0 | 7,045.0 | 8,165.9 | 7,173.0 | 23.6 | 27.2 | -105.88 | -974.8 | 883.0 | 467.8 | 424.6 | 43.18 | 10.831 | | |
| 8,100.0 | 7,045.0 | 8,265.9 | 7,173.0 | 25.0 | 28.4 | -105.88 | -1,074.8 | 883.0 | 467.8 | 421.7 | 46.05 | 10.157 | | |
| 8,200.0 | 7,045.0 | 8,365.9 | 7,173.0 | 26.5 | 29.7 | -105.88 | -1,174.8 | 883.0 | 467.8 | 418.8 | 48.99 | 9.549 | | |
| 8,300.0 | 7,045.0 | 8,465.9 | 7,173.0 | 27.9 | 31.0 | -105.88 | -1,274.8 | 883.0 | 467.8 | 415.8 | 51.97 | 9.000 | | |
| 8,400.0 | 7,045.0 | 8,565.9 | 7,173.0 | 29.5 | 32.4 | -105.88 | -1,374.8 | 883.0 | 467.8 | 412.7 | 55.00 | 8.504 | | |
| 8,500.0 | 7,045.0 | 8,665.9 | 7,173.0 | 31.0 | 33.8 | -105.88 | -1,474.8 | 883.0 | 467.8 | 409.7 | 58.07 | 8.054 | | |
| 8,600.0 | 7,045.0 | 8,765.9 | 7,173.0 | 32.6 | 35.2 | -105.88 | -1,574.8 | 883.0 | 467.8 | 406.6 | 61.18 | 7.646 | | |
| 8,700.0 | 7,045.0 | 8,865.9 | 7,173.0 | 34.2 | 36.7 | -105.88 | -1,674.8 | 883.0 | 467.8 | 403.4 | 64.31 | 7.274 | | |
| 8,800.0 | 7,045.0 | 8,965.9 | 7,173.0 | 35.8 | 38.2 | -105.88 | -1,774.8 | 883.0 | 467.8 | 400.3 | 67.46 | 6.934 | | |
| 8,900.0 | 7,045.0 | 9,065.9 | 7,173.0 | 37.4 | 39.7 | -105.88 | -1,874.8 | 883.0 | 467.8 | 397.1 | 70.63 | 6.622 | | |
| 9,000.0 | 7,045.0 | 9,165.9 | 7,173.0 | 39.0 | 41.2 | -105.88 | -1,974.8 | 883.0 | 467.8 | 393.9 | 73.83 | 6.336 | | |
| 9,100.0 | 7,045.0 | 9,265.9 | 7,173.0 | 40.6 | 42.8 | -105.88 | -2,074.8 | 883.0 | 467.8 | 390.7 | 77.03 | 6.072 | | |
| 9,200.0 | 7,045.0 | 9,365.9 | 7,173.0 | 42.3 | 44.4 | -105.88 | -2,174.8 | 883.0 | 467.8 | 387.5 | 80.26 | 5.828 | | |
| 9,300.0 | 7,045.0 | 9,465.9 | 7,173.0 | 43.9 | 45.9 | -105.88 | -2,274.8 | 883.0 | 467.8 | 384.3 | 83.49 | 5.603 | | |
| 9,400.0 | 7,045.0 | 9,565.9 | 7,173.0 | 45.6 | 47.5 | -105.88 | -2,374.8 | 883.0 | 467.8 | 381.0 | 86.73 | 5.393 | | |
| 9,500.0 | 7,045.0 | 9,665.9 | 7,173.0 | 47.3 | 49.1 | -105.88 | -2,474.8 | 883.0 | 467.8 | 377.8 | 89.99 | 5.198 | | |
| 9,600.0 | 7,045.0 | 9,765.9 | 7,173.0 | 48.9 | 50.8 | -105.88 | -2,574.8 | 883.0 | 467.8 | 374.5 | 93.25 | 5.016 | | |
| 9,700.0 | 7,045.0 | 9,865.9 | 7,173.0 | 50.6 | 52.4 | -105.88 | -2,674.8 | 883.0 | 467.8 | 371.2 | 96.52 | 4.846 | | |
| 9,800.0 | 7,045.0 | 9,965.9 | 7,173.0 | 52.3 | 54.0 | -105.88 | -2,774.8 | 883.0 | 467.8 | 368.0 | 99.80 | 4.687 | | |
| 9,900.0 | 7,045.0 | 10,065.9 | 7,173.0 | 54.0 | 55.6 | -105.88 | -2,874.8 | 883.0 | 467.8 | 364.7 | 103.08 | 4.538 | | |
| 10,000.0 | 7,045.0 | 10,165.9 | 7,173.0 | 55.7 | 57.3 | -105.88 | -2,974.8 | 883.0 | 467.8 | 361.4 | 106.37 | 4.397 | | |
| 10,100.0 | 7,045.0 | 10,265.9 | 7,173.0 | 57.4 | 58.9 | -105.88 | -3,074.8 | 883.0 | 467.8 | 358.1 | 109.67 | 4.265 | | |
| 10,200.0 | 7,045.0 | 10,365.9 | 7,173.0 | 59.1 | 60.6 | -105.88 | -3,174.8 | 883.0 | 467.8 | 354.8 | 112.97 | 4.141 | | |
| 10,300.0 | 7,045.0 | 10,465.9 | 7,173.0 | 60.8 | 62.3 | -105.88 | -3,274.8 | 883.0 | 467.8 | 351.5 | 116.27 | 4.023 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | | S32-T2N-R64W (Newman) - Ruhl 1F-32H-B264 - Hz - Plan #1 | | Offset Site Error: | | 0.0 ft | |
|---------------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---|---------|--------------------|--|--------|--|
| Survey Program: | | | | | | | | | | | | | 0-Geolink MWD | | Offset Well Error: | | 0.0 ft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | | | | | | |
| 10,400.0 | 7,045.0 | 10,565.9 | 7,173.0 | 62.5 | 63.9 | -105.88 | -3,374.8 | 883.0 | 467.8 | 348.2 | 119.58 | 3.912 | | | | | | |
| 10,500.0 | 7,045.0 | 10,665.9 | 7,173.0 | 64.2 | 65.6 | -105.88 | -3,474.8 | 883.0 | 467.8 | 344.9 | 122.89 | 3.806 | | | | | | |
| 10,600.0 | 7,045.0 | 10,765.9 | 7,173.0 | 65.9 | 67.3 | -105.88 | -3,574.8 | 883.0 | 467.8 | 341.5 | 126.21 | 3.706 | | | | | | |
| 10,700.0 | 7,045.0 | 10,865.9 | 7,173.0 | 67.6 | 69.0 | -105.88 | -3,674.8 | 883.0 | 467.8 | 338.2 | 129.53 | 3.611 | | | | | | |
| 10,800.0 | 7,045.0 | 10,965.9 | 7,173.0 | 69.3 | 70.6 | -105.88 | -3,774.8 | 883.0 | 467.8 | 334.9 | 132.85 | 3.521 | | | | | | |
| 10,900.0 | 7,045.0 | 11,065.9 | 7,173.0 | 71.1 | 72.3 | -105.88 | -3,874.8 | 883.0 | 467.8 | 331.6 | 136.17 | 3.435 | | | | | | |
| 11,000.0 | 7,045.0 | 11,165.9 | 7,173.0 | 72.8 | 74.0 | -105.88 | -3,974.8 | 883.0 | 467.8 | 328.3 | 139.50 | 3.353 | | | | | | |
| 11,100.0 | 7,045.0 | 11,265.9 | 7,173.0 | 74.5 | 75.7 | -105.88 | -4,074.8 | 883.0 | 467.8 | 324.9 | 142.83 | 3.275 | | | | | | |
| 11,200.0 | 7,045.0 | 11,365.9 | 7,173.0 | 76.2 | 77.4 | -105.88 | -4,174.8 | 883.0 | 467.8 | 321.6 | 146.16 | 3.200 | | | | | | |
| 11,300.0 | 7,045.0 | 11,465.9 | 7,173.0 | 77.9 | 79.1 | -105.88 | -4,274.8 | 883.0 | 467.8 | 318.3 | 149.49 | 3.129 | | | | | | |
| 11,400.0 | 7,045.0 | 11,565.9 | 7,173.0 | 79.7 | 80.8 | -105.88 | -4,374.8 | 883.0 | 467.8 | 314.9 | 152.83 | 3.061 | | | | | | |
| 11,500.0 | 7,045.0 | 11,665.9 | 7,173.0 | 81.4 | 82.5 | -105.88 | -4,474.8 | 883.0 | 467.8 | 311.6 | 156.16 | 2.995 | | | | | | |
| 11,579.4 | 7,045.0 | 11,745.3 | 7,173.0 | 82.8 | 83.9 | -105.88 | -4,554.2 | 883.0 | 467.8 | 308.9 | 158.81 | 2.945 SF | | | | | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1G-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|-----------|--|--------------------|--------|
| Survey Program: O-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 89.72 | 3.7 | 762.0 | 762.0 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | 89.72 | 3.7 | 762.0 | 762.0 | 0.35 | 2,183.008 | | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | 89.72 | 3.7 | 762.0 | 762.0 | 0.70 | 1,091.504 | | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | 89.72 | 3.7 | 762.0 | 762.0 | 1.05 | 727.669 | | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.7 | 0.7 | 89.72 | 3.7 | 762.0 | 762.0 | 1.40 | 545.752 | | | |
| 500.0 | 500.0 | 495.4 | 495.4 | 0.9 | 0.9 | 34.59 | 3.8 | 762.1 | 761.4 | 1.74 | 438.276 | | | |
| 600.0 | 600.0 | 586.2 | 586.2 | 1.1 | 1.0 | 34.62 | 4.7 | 763.2 | 760.5 | 2.07 | 367.102 | | | |
| 700.0 | 699.9 | 677.0 | 677.0 | 1.2 | 1.2 | 34.66 | 6.6 | 765.4 | 759.3 | 2.41 | 315.197 | | | |
| 800.0 | 799.7 | 767.9 | 767.7 | 1.4 | 1.4 | 34.70 | 9.4 | 768.7 | 757.9 | 2.75 | 275.427 | | | |
| 900.0 | 899.4 | 858.8 | 858.5 | 1.6 | 1.5 | 34.72 | 13.2 | 773.1 | 756.3 | 3.10 | 243.902 | | | |
| 1,000.0 | 999.0 | 958.8 | 958.2 | 1.8 | 1.7 | 34.73 | 17.8 | 778.5 | 755.0 | 3.47 | 217.436 | | | |
| 1,100.0 | 1,098.7 | 1,058.8 | 1,057.9 | 2.1 | 1.9 | 34.73 | 22.4 | 783.9 | 753.7 | 3.85 | 195.954 | | | |
| 1,200.0 | 1,198.4 | 1,158.8 | 1,157.7 | 2.3 | 2.1 | 34.74 | 27.0 | 789.3 | 752.3 | 4.22 | 178.191 | | | |
| 1,300.0 | 1,298.0 | 1,258.8 | 1,257.4 | 2.5 | 2.3 | 34.74 | 31.7 | 794.7 | 751.0 | 4.60 | 163.277 | | | |
| 1,400.0 | 1,397.7 | 1,358.8 | 1,357.2 | 2.7 | 2.5 | 34.75 | 36.3 | 800.1 | 749.6 | 4.98 | 150.589 | | | |
| 1,500.0 | 1,497.3 | 1,458.8 | 1,456.9 | 2.9 | 2.8 | 34.75 | 40.9 | 805.5 | 748.3 | 5.36 | 139.670 | | | |
| 1,600.0 | 1,597.0 | 1,558.8 | 1,556.6 | 3.1 | 3.0 | 34.76 | 45.5 | 810.9 | 747.0 | 5.74 | 130.179 | | | |
| 1,700.0 | 1,696.7 | 1,658.7 | 1,656.4 | 3.4 | 3.2 | 34.76 | 50.2 | 816.2 | 745.6 | 6.12 | 121.855 | | | |
| 1,800.0 | 1,796.3 | 1,758.7 | 1,756.1 | 3.6 | 3.4 | 34.77 | 54.8 | 821.6 | 744.3 | 6.50 | 114.498 | | | |
| 1,900.0 | 1,896.0 | 1,858.7 | 1,855.9 | 3.8 | 3.6 | 34.77 | 59.4 | 827.0 | 742.9 | 6.88 | 107.949 | | | |
| 2,000.0 | 1,995.7 | 1,958.7 | 1,955.6 | 4.0 | 3.8 | 34.78 | 64.0 | 832.4 | 741.6 | 7.26 | 102.084 | | | |
| 2,100.0 | 2,095.3 | 2,058.7 | 2,055.3 | 4.3 | 4.0 | 34.78 | 68.6 | 837.8 | 740.3 | 7.65 | 96.802 | | | |
| 2,200.0 | 2,195.0 | 2,158.7 | 2,155.1 | 4.5 | 4.2 | 34.79 | 73.3 | 843.2 | 738.9 | 8.03 | 92.020 | | | |
| 2,300.0 | 2,294.7 | 2,258.7 | 2,254.8 | 4.7 | 4.4 | 34.79 | 77.9 | 848.6 | 737.6 | 8.41 | 87.670 | | | |
| 2,400.0 | 2,394.3 | 2,358.7 | 2,354.5 | 4.9 | 4.7 | 34.80 | 82.5 | 854.0 | 736.2 | 8.80 | 83.698 | | | |
| 2,500.0 | 2,494.0 | 2,458.7 | 2,454.3 | 5.2 | 4.9 | 34.80 | 87.1 | 859.4 | 734.9 | 9.18 | 80.055 | | | |
| 2,600.0 | 2,593.6 | 2,558.7 | 2,554.0 | 5.4 | 5.1 | 34.81 | 91.8 | 864.8 | 733.6 | 9.56 | 76.704 | | | |
| 2,700.0 | 2,693.3 | 2,658.7 | 2,653.8 | 5.6 | 5.3 | 34.81 | 96.4 | 870.2 | 732.2 | 9.95 | 73.610 | | | |
| 2,800.0 | 2,793.0 | 2,758.6 | 2,753.5 | 5.8 | 5.5 | 34.82 | 101.0 | 875.6 | 730.9 | 10.33 | 70.745 | | | |
| 2,900.0 | 2,892.6 | 2,858.6 | 2,853.2 | 6.1 | 5.7 | 34.82 | 105.6 | 881.0 | 729.5 | 10.72 | 68.084 | | | |
| 3,000.0 | 2,992.3 | 2,958.6 | 2,953.0 | 6.3 | 5.9 | 34.83 | 110.3 | 886.4 | 728.2 | 11.10 | 65.607 | | | |
| 3,100.0 | 3,092.0 | 3,058.6 | 3,052.7 | 6.5 | 6.1 | 34.83 | 114.9 | 891.8 | 726.9 | 11.48 | 63.295 | | | |
| 3,200.0 | 3,191.6 | 3,158.6 | 3,152.5 | 6.7 | 6.4 | 34.84 | 119.5 | 897.2 | 725.5 | 11.87 | 61.132 | | | |
| 3,300.0 | 3,291.3 | 3,258.6 | 3,252.2 | 7.0 | 6.6 | 34.84 | 124.1 | 902.6 | 724.2 | 12.25 | 59.105 | | | |
| 3,400.0 | 3,390.9 | 3,358.6 | 3,351.9 | 7.2 | 6.8 | 34.85 | 128.8 | 908.0 | 722.8 | 12.64 | 57.200 | | | |
| 3,500.0 | 3,490.6 | 3,458.6 | 3,451.7 | 7.4 | 7.0 | 34.85 | 133.4 | 913.4 | 721.5 | 13.02 | 55.408 | | | |
| 3,600.0 | 3,590.3 | 3,558.6 | 3,551.4 | 7.6 | 7.2 | 34.86 | 138.0 | 918.8 | 720.2 | 13.41 | 53.718 | | | |
| 3,700.0 | 3,689.9 | 3,658.6 | 3,651.1 | 7.9 | 7.4 | 34.86 | 142.6 | 924.2 | 718.8 | 13.79 | 52.123 | | | |
| 3,800.0 | 3,789.6 | 3,758.6 | 3,750.9 | 8.1 | 7.6 | 34.87 | 147.2 | 929.6 | 717.5 | 14.18 | 50.613 | | | |
| 3,900.0 | 3,889.3 | 3,858.5 | 3,850.6 | 8.3 | 7.9 | 34.87 | 151.9 | 935.0 | 716.1 | 14.56 | 49.184 | | | |
| 4,000.0 | 3,988.9 | 3,958.5 | 3,950.4 | 8.5 | 8.1 | 34.88 | 156.5 | 940.4 | 714.8 | 14.95 | 47.827 | | | |
| 4,100.0 | 4,088.6 | 4,058.5 | 4,050.1 | 8.8 | 8.3 | 34.88 | 161.1 | 945.8 | 713.5 | 15.33 | 46.539 | | | |
| 4,200.0 | 4,188.2 | 4,158.5 | 4,149.8 | 9.0 | 8.5 | 34.89 | 165.7 | 951.2 | 712.1 | 15.72 | 45.314 | | | |
| 4,300.0 | 4,287.9 | 4,258.5 | 4,249.6 | 9.2 | 8.7 | 34.89 | 170.4 | 956.6 | 710.8 | 16.10 | 44.147 | | | |
| 4,400.0 | 4,387.6 | 4,358.5 | 4,349.3 | 9.4 | 8.9 | 34.90 | 175.0 | 962.0 | 709.4 | 16.49 | 43.034 | | | |
| 4,500.0 | 4,487.2 | 4,458.5 | 4,449.0 | 9.7 | 9.1 | 34.90 | 179.6 | 967.4 | 708.1 | 16.87 | 41.973 | | | |
| 4,600.0 | 4,586.9 | 4,558.5 | 4,548.8 | 9.9 | 9.3 | 34.91 | 184.2 | 972.8 | 706.8 | 17.26 | 40.958 | | | |
| 4,700.0 | 4,686.6 | 4,658.5 | 4,648.5 | 10.1 | 9.6 | 34.91 | 188.9 | 978.1 | 705.4 | 17.64 | 39.988 | | | |
| 4,800.0 | 4,786.2 | 4,758.5 | 4,748.3 | 10.3 | 9.8 | 34.92 | 193.5 | 983.5 | 704.1 | 18.03 | 39.059 | | | |
| 4,900.0 | 4,885.9 | 4,858.5 | 4,848.0 | 10.6 | 10.0 | 34.93 | 198.1 | 988.9 | 702.7 | 18.41 | 38.169 | | | |
| 5,000.0 | 4,985.5 | 4,958.5 | 4,947.7 | 10.8 | 10.2 | 34.93 | 202.7 | 994.3 | 701.4 | 18.80 | 37.315 | | | |
| 5,100.0 | 5,085.2 | 5,058.4 | 5,047.5 | 11.0 | 10.4 | 34.94 | 207.4 | 999.7 | 700.1 | 19.18 | 36.496 | | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1G-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Distance | | Total | | Separation | | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Uncertainty Axis | Factor | |
| 5,200.0 | 5,184.9 | 5,158.4 | 5,147.2 | 11.2 | 10.6 | 34.94 | 212.0 | 1,005.1 | 698.7 | 679.2 | 19.57 | 35.708 | |
| 5,300.0 | 5,284.5 | 5,258.4 | 5,247.0 | 11.5 | 10.8 | 34.95 | 216.6 | 1,010.5 | 697.4 | 677.4 | 19.95 | 34.951 | |
| 5,400.0 | 5,384.2 | 5,358.4 | 5,346.7 | 11.7 | 11.1 | 34.95 | 221.2 | 1,015.9 | 696.0 | 675.7 | 20.34 | 34.223 | |
| 5,500.0 | 5,483.9 | 5,458.4 | 5,446.4 | 11.9 | 11.3 | 34.96 | 225.9 | 1,021.3 | 694.7 | 674.0 | 20.72 | 33.522 | |
| 5,600.0 | 5,583.5 | 5,558.4 | 5,546.2 | 12.1 | 11.5 | 34.96 | 230.5 | 1,026.7 | 693.4 | 672.3 | 21.11 | 32.846 | |
| 5,700.0 | 5,683.2 | 5,658.4 | 5,645.9 | 12.4 | 11.7 | 34.97 | 235.1 | 1,032.1 | 692.0 | 670.5 | 21.50 | 32.195 | |
| 5,800.0 | 5,782.9 | 5,758.4 | 5,745.6 | 12.6 | 11.9 | 34.97 | 239.7 | 1,037.5 | 690.7 | 668.8 | 21.88 | 31.566 | |
| 5,900.0 | 5,882.5 | 5,858.4 | 5,845.4 | 12.8 | 12.1 | 34.98 | 244.3 | 1,042.9 | 689.4 | 667.1 | 22.27 | 30.959 | |
| 6,000.0 | 5,982.2 | 5,958.4 | 5,945.1 | 13.0 | 12.3 | 34.99 | 249.0 | 1,048.3 | 688.0 | 665.4 | 22.65 | 30.373 | |
| 6,100.0 | 6,081.8 | 6,058.4 | 6,044.9 | 13.3 | 12.6 | 34.99 | 253.6 | 1,053.7 | 686.7 | 663.6 | 23.04 | 29.807 | |
| 6,200.0 | 6,181.5 | 6,158.3 | 6,144.6 | 13.5 | 12.8 | 35.00 | 258.2 | 1,059.1 | 685.3 | 661.9 | 23.42 | 29.259 | |
| 6,300.0 | 6,281.2 | 6,258.3 | 6,244.3 | 13.7 | 13.0 | 35.00 | 262.8 | 1,064.5 | 684.0 | 660.2 | 23.81 | 28.728 | |
| 6,400.0 | 6,380.9 | 6,358.2 | 6,344.0 | 13.9 | 13.2 | -46.36 | 265.9 | 1,069.9 | 682.6 | 658.6 | 24.09 | 28.335 | |
| 6,500.0 | 6,479.6 | 6,458.5 | 6,443.7 | 14.0 | 13.3 | -72.70 | 256.9 | 1,075.3 | 681.3 | 657.2 | 24.19 | 28.172 | |
| 6,600.0 | 6,575.4 | 6,559.5 | 6,541.8 | 14.0 | 13.3 | -80.01 | 233.9 | 1,080.6 | 680.1 | 656.0 | 24.15 | 28.160 | |
| 6,700.0 | 6,666.4 | 6,661.3 | 6,636.4 | 14.1 | 13.3 | -83.49 | 196.9 | 1,085.7 | 679.0 | 654.9 | 24.06 | 28.218 | |
| 6,800.0 | 6,750.9 | 6,763.7 | 6,725.3 | 14.1 | 13.3 | -85.59 | 146.6 | 1,090.5 | 678.0 | 654.0 | 24.01 | 28.241 | |
| 6,900.0 | 6,827.2 | 6,866.8 | 6,806.7 | 14.1 | 13.4 | -87.02 | 83.6 | 1,094.9 | 677.1 | 653.0 | 24.09 | 28.106 | |
| 7,000.0 | 6,893.9 | 6,970.5 | 6,878.6 | 14.3 | 13.5 | -88.06 | 9.1 | 1,098.8 | 676.3 | 651.9 | 24.41 | 27.702 | |
| 7,100.0 | 6,949.6 | 7,074.7 | 6,939.3 | 14.6 | 13.8 | -88.82 | -75.4 | 1,102.1 | 675.7 | 650.6 | 25.08 | 26.947 | |
| 7,200.0 | 6,993.2 | 7,179.4 | 6,987.3 | 15.1 | 14.3 | -89.37 | -168.3 | 1,104.7 | 675.2 | 649.1 | 26.12 | 25.853 | |
| 7,300.0 | 7,023.9 | 7,284.4 | 7,021.4 | 15.7 | 15.0 | -89.74 | -267.5 | 1,106.6 | 674.9 | 647.4 | 27.55 | 24.495 | |
| 7,400.0 | 7,041.1 | 7,389.6 | 7,040.6 | 16.5 | 15.9 | -89.95 | -370.9 | 1,107.6 | 674.8 | 645.4 | 29.35 | 22.990 | |
| 7,489.7 | 7,046.3 | 7,483.3 | 7,045.0 | 17.4 | 16.8 | -89.89 | -464.4 | 1,107.8 | 674.6 | 643.4 | 31.23 | 21.604 CC | |
| 7,500.0 | 7,045.0 | 7,493.6 | 7,045.0 | 17.5 | 16.9 | -90.00 | -474.7 | 1,107.8 | 674.7 | 643.3 | 31.44 | 21.458 | |
| 7,600.0 | 7,045.0 | 7,593.6 | 7,045.0 | 18.5 | 18.0 | -90.00 | -574.7 | 1,107.8 | 674.7 | 640.9 | 33.78 | 19.972 | |
| 7,700.0 | 7,045.0 | 7,693.6 | 7,045.0 | 19.7 | 19.2 | -90.00 | -674.7 | 1,107.8 | 674.7 | 638.4 | 36.31 | 18.583 | |
| 7,800.0 | 7,045.0 | 7,793.6 | 7,045.0 | 20.9 | 20.4 | -90.00 | -774.7 | 1,107.8 | 674.7 | 635.7 | 38.99 | 17.307 | |
| 7,900.0 | 7,045.0 | 7,893.6 | 7,045.0 | 22.2 | 21.8 | -90.00 | -874.7 | 1,107.9 | 674.7 | 633.0 | 41.79 | 16.147 | |
| 8,000.0 | 7,045.0 | 7,993.6 | 7,045.0 | 23.6 | 23.2 | -90.00 | -974.7 | 1,107.9 | 674.7 | 630.1 | 44.69 | 15.099 | |
| 8,100.0 | 7,045.0 | 8,093.6 | 7,045.0 | 25.0 | 24.6 | -90.00 | -1,074.7 | 1,107.9 | 674.7 | 627.1 | 47.67 | 14.154 | |
| 8,200.0 | 7,045.0 | 8,193.6 | 7,045.0 | 26.5 | 26.1 | -90.00 | -1,174.7 | 1,107.9 | 674.7 | 624.0 | 50.72 | 13.303 | |
| 8,300.0 | 7,045.0 | 8,293.6 | 7,045.0 | 27.9 | 27.6 | -90.00 | -1,274.7 | 1,107.9 | 674.7 | 620.9 | 53.83 | 12.536 | |
| 8,400.0 | 7,045.0 | 8,393.6 | 7,045.0 | 29.5 | 29.2 | -90.00 | -1,374.7 | 1,107.9 | 674.8 | 617.8 | 56.98 | 11.842 | |
| 8,500.0 | 7,045.0 | 8,493.6 | 7,045.0 | 31.0 | 30.7 | -90.00 | -1,474.7 | 1,107.9 | 674.8 | 614.6 | 60.17 | 11.214 | |
| 8,600.0 | 7,045.0 | 8,593.6 | 7,045.0 | 32.6 | 32.3 | -90.00 | -1,574.7 | 1,107.9 | 674.8 | 611.4 | 63.40 | 10.644 | |
| 8,700.0 | 7,045.0 | 8,693.6 | 7,045.0 | 34.2 | 33.9 | -90.00 | -1,674.7 | 1,107.9 | 674.8 | 608.1 | 66.65 | 10.124 | |
| 8,800.0 | 7,045.0 | 8,793.6 | 7,045.0 | 35.8 | 35.5 | -90.00 | -1,774.7 | 1,107.9 | 674.8 | 604.8 | 69.93 | 9.649 | |
| 8,900.0 | 7,045.0 | 8,893.6 | 7,045.0 | 37.4 | 37.1 | -90.00 | -1,874.7 | 1,107.9 | 674.8 | 601.5 | 73.23 | 9.215 | |
| 9,000.0 | 7,045.0 | 8,993.6 | 7,045.0 | 39.0 | 38.8 | -90.00 | -1,974.7 | 1,107.9 | 674.8 | 598.2 | 76.55 | 8.815 | |
| 9,100.0 | 7,045.0 | 9,093.6 | 7,045.0 | 40.6 | 40.4 | -90.00 | -2,074.7 | 1,107.9 | 674.8 | 594.9 | 79.88 | 8.447 | |
| 9,200.0 | 7,045.0 | 9,193.6 | 7,045.0 | 42.3 | 42.1 | -90.00 | -2,174.7 | 1,107.9 | 674.8 | 591.5 | 83.23 | 8.107 | |
| 9,300.0 | 7,045.0 | 9,293.6 | 7,045.0 | 43.9 | 43.7 | -90.00 | -2,274.7 | 1,107.9 | 674.8 | 588.2 | 86.59 | 7.793 | |
| 9,400.0 | 7,045.0 | 9,393.6 | 7,045.0 | 45.6 | 45.4 | -90.00 | -2,374.7 | 1,107.9 | 674.8 | 584.8 | 89.96 | 7.501 | |
| 9,500.0 | 7,045.0 | 9,493.6 | 7,045.0 | 47.3 | 47.1 | -90.00 | -2,474.7 | 1,107.9 | 674.8 | 581.4 | 93.35 | 7.229 | |
| 9,600.0 | 7,045.0 | 9,593.6 | 7,045.0 | 48.9 | 48.8 | -90.00 | -2,574.7 | 1,107.9 | 674.8 | 578.1 | 96.74 | 6.975 | |
| 9,700.0 | 7,045.0 | 9,693.6 | 7,045.0 | 50.6 | 50.5 | -90.00 | -2,674.7 | 1,107.9 | 674.8 | 574.7 | 100.14 | 6.739 | |
| 9,800.0 | 7,045.0 | 9,793.6 | 7,045.0 | 52.3 | 52.2 | -90.00 | -2,774.7 | 1,107.9 | 674.8 | 571.3 | 103.54 | 6.517 | |
| 9,900.0 | 7,045.0 | 9,893.6 | 7,045.0 | 54.0 | 53.9 | -90.00 | -2,874.7 | 1,107.9 | 674.8 | 567.8 | 106.96 | 6.309 | |
| 10,000.0 | 7,045.0 | 9,993.6 | 7,045.0 | 55.7 | 55.6 | -90.00 | -2,974.7 | 1,107.9 | 674.8 | 564.4 | 110.38 | 6.114 | |
| 10,100.0 | 7,045.0 | 10,093.6 | 7,045.0 | 57.4 | 57.3 | -90.00 | -3,074.7 | 1,107.9 | 674.8 | 561.0 | 113.80 | 5.930 | |
| 10,200.0 | 7,045.0 | 10,193.6 | 7,045.0 | 59.1 | 59.0 | -90.00 | -3,174.7 | 1,107.9 | 674.8 | 557.6 | 117.23 | 5.756 | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1G-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|--|------------------------|------------------------|------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|---------------------------|---------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | |
| 10,300.0 | 7,045.0 | 10,293.6 | 7,045.0 | 60.8 | 60.7 | -90.00 | -3,274.7 | 1,107.9 | 674.8 | 554.1 | 120.67 | 5.592 | |
| 10,400.0 | 7,045.0 | 10,393.6 | 7,045.0 | 62.5 | 62.4 | -90.00 | -3,374.7 | 1,107.9 | 674.8 | 550.7 | 124.10 | 5.437 | |
| 10,500.0 | 7,045.0 | 10,493.6 | 7,045.0 | 64.2 | 64.1 | -90.00 | -3,474.7 | 1,107.9 | 674.8 | 547.3 | 127.55 | 5.291 | |
| 10,600.0 | 7,045.0 | 10,593.6 | 7,045.0 | 65.9 | 65.8 | -90.00 | -3,574.7 | 1,107.9 | 674.8 | 543.8 | 130.99 | 5.152 | |
| 10,700.0 | 7,045.0 | 10,693.6 | 7,045.0 | 67.6 | 67.5 | -90.00 | -3,674.7 | 1,107.9 | 674.8 | 540.4 | 134.44 | 5.019 | |
| 10,800.0 | 7,045.0 | 10,793.6 | 7,045.0 | 69.3 | 69.2 | -90.00 | -3,774.7 | 1,107.9 | 674.8 | 536.9 | 137.89 | 4.894 | |
| 10,900.0 | 7,045.0 | 10,893.6 | 7,045.0 | 71.1 | 71.0 | -90.00 | -3,874.7 | 1,107.9 | 674.8 | 533.5 | 141.35 | 4.774 | |
| 11,000.0 | 7,045.0 | 10,993.6 | 7,045.0 | 72.8 | 72.7 | -90.00 | -3,974.7 | 1,107.9 | 674.8 | 530.0 | 144.80 | 4.660 | |
| 11,100.0 | 7,045.0 | 11,093.6 | 7,045.0 | 74.5 | 74.4 | -90.00 | -4,074.7 | 1,107.9 | 674.8 | 526.6 | 148.26 | 4.552 | |
| 11,200.0 | 7,045.0 | 11,193.6 | 7,045.0 | 76.2 | 76.1 | -90.00 | -4,174.7 | 1,108.0 | 674.8 | 523.1 | 151.73 | 4.448 | |
| 11,300.0 | 7,045.0 | 11,293.6 | 7,045.0 | 77.9 | 77.9 | -90.00 | -4,274.7 | 1,108.0 | 674.8 | 519.7 | 155.19 | 4.349 | |
| 11,400.0 | 7,045.0 | 11,393.6 | 7,045.0 | 79.7 | 79.6 | -90.00 | -4,374.7 | 1,108.0 | 674.8 | 516.2 | 158.66 | 4.254 | |
| 11,500.0 | 7,045.0 | 11,493.6 | 7,045.0 | 81.4 | 81.3 | -90.00 | -4,474.7 | 1,108.0 | 674.8 | 512.7 | 162.12 | 4.163 | |
| 11,579.4 | 7,045.0 | 11,573.0 | 7,045.0 | 82.8 | 82.7 | -90.00 | -4,554.2 | 1,108.0 | 674.9 | 510.0 | 164.88 | 4.093 ES, SF | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1H-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|------------|--|--|--------------------|--------|
| Survey Program: O-Geolink MWD | | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 89.76 | 3.3 | 772.1 | 772.1 | | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | 89.76 | 3.3 | 772.1 | 772.1 | 0.35 | 2,211.853 | | | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | 89.76 | 3.3 | 772.1 | 772.1 | 0.70 | 1,105.926 | | | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | 89.76 | 3.3 | 772.1 | 772.1 | 1.05 | 737.284 | | | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.7 | 0.7 | 89.76 | 3.3 | 772.1 | 772.1 | 1.40 | 552.963 | | | | |
| 500.0 | 500.0 | 489.3 | 489.3 | 0.9 | 0.9 | 34.60 | 3.6 | 772.7 | 772.1 | 1.73 | 447.073 | | | | |
| 600.0 | 600.0 | 578.7 | 578.7 | 1.1 | 1.0 | 34.63 | 4.6 | 774.5 | 772.0 | 2.06 | 374.963 | | | | |
| 700.0 | 699.9 | 668.1 | 668.0 | 1.2 | 1.2 | 34.67 | 6.2 | 777.6 | 771.8 | 2.39 | 322.474 | | | | |
| 800.0 | 799.7 | 757.4 | 757.2 | 1.4 | 1.3 | 34.73 | 8.5 | 781.9 | 771.6 | 2.73 | 282.374 | | | | |
| 887.8 | 887.2 | 835.8 | 835.4 | 1.6 | 1.5 | 34.79 | 11.1 | 786.7 | 771.6 | 3.04 | 254.191 | | | | |
| 900.0 | 899.4 | 846.8 | 846.3 | 1.6 | 1.5 | 34.81 | 11.5 | 787.4 | 771.4 | 3.08 | 250.646 CC | | | | |
| 1,000.0 | 999.0 | 936.1 | 935.4 | 1.8 | 1.7 | 34.85 | 15.1 | 794.2 | 772.3 | 3.43 | 225.271 | | | | |
| 1,100.0 | 1,098.7 | 1,031.1 | 1,029.8 | 2.1 | 1.9 | 34.86 | 19.5 | 802.5 | 774.3 | 3.79 | 204.160 | | | | |
| 1,200.0 | 1,198.4 | 1,131.1 | 1,129.3 | 2.3 | 2.2 | 34.85 | 24.2 | 811.4 | 776.4 | 4.17 | 186.268 | | | | |
| 1,300.0 | 1,298.0 | 1,231.1 | 1,228.8 | 2.5 | 2.4 | 34.85 | 29.0 | 820.3 | 778.6 | 4.55 | 171.271 | | | | |
| 1,400.0 | 1,397.7 | 1,331.0 | 1,328.3 | 2.7 | 2.6 | 34.84 | 33.7 | 829.2 | 780.8 | 4.93 | 158.531 | | | | |
| 1,500.0 | 1,497.3 | 1,431.0 | 1,427.7 | 2.9 | 2.9 | 34.84 | 38.4 | 838.1 | 783.0 | 5.31 | 147.583 | | | | |
| 1,600.0 | 1,597.0 | 1,531.0 | 1,527.2 | 3.1 | 3.1 | 34.84 | 43.2 | 847.0 | 785.1 | 5.69 | 138.079 | | | | |
| 1,700.0 | 1,696.7 | 1,631.0 | 1,626.7 | 3.4 | 3.3 | 34.83 | 47.9 | 855.9 | 787.3 | 6.07 | 129.753 | | | | |
| 1,800.0 | 1,796.3 | 1,730.9 | 1,726.1 | 3.6 | 3.6 | 34.83 | 52.6 | 864.8 | 789.5 | 6.45 | 122.403 | | | | |
| 1,900.0 | 1,896.0 | 1,830.9 | 1,825.6 | 3.8 | 3.8 | 34.83 | 57.4 | 873.7 | 791.6 | 6.83 | 115.866 | | | | |
| 2,000.0 | 1,995.7 | 1,930.9 | 1,925.1 | 4.0 | 4.1 | 34.82 | 62.1 | 882.6 | 793.8 | 7.22 | 110.018 | | | | |
| 2,100.0 | 2,095.3 | 2,030.9 | 2,024.5 | 4.3 | 4.3 | 34.82 | 66.8 | 891.5 | 796.0 | 7.60 | 104.754 | | | | |
| 2,200.0 | 2,195.0 | 2,130.8 | 2,124.0 | 4.5 | 4.6 | 34.81 | 71.6 | 900.3 | 798.1 | 7.98 | 99.993 | | | | |
| 2,300.0 | 2,294.7 | 2,230.8 | 2,223.5 | 4.7 | 4.8 | 34.81 | 76.3 | 909.2 | 800.3 | 8.37 | 95.665 | | | | |
| 2,400.0 | 2,394.3 | 2,330.8 | 2,322.9 | 4.9 | 5.0 | 34.81 | 81.0 | 918.1 | 802.5 | 8.75 | 91.715 | | | | |
| 2,500.0 | 2,494.0 | 2,430.8 | 2,422.4 | 5.2 | 5.3 | 34.80 | 85.8 | 927.0 | 804.6 | 9.13 | 88.096 | | | | |
| 2,600.0 | 2,593.6 | 2,530.7 | 2,521.9 | 5.4 | 5.5 | 34.80 | 90.5 | 935.9 | 806.8 | 9.52 | 84.767 | | | | |
| 2,700.0 | 2,693.3 | 2,630.7 | 2,621.3 | 5.6 | 5.8 | 34.80 | 95.2 | 944.8 | 809.0 | 9.90 | 81.695 | | | | |
| 2,800.0 | 2,793.0 | 2,730.7 | 2,720.8 | 5.8 | 6.0 | 34.79 | 100.0 | 953.7 | 811.1 | 10.29 | 78.852 | | | | |
| 2,900.0 | 2,892.6 | 2,830.7 | 2,820.3 | 6.1 | 6.3 | 34.79 | 104.7 | 962.6 | 813.3 | 10.67 | 76.214 | | | | |
| 3,000.0 | 2,992.3 | 2,930.7 | 2,919.7 | 6.3 | 6.5 | 34.78 | 109.4 | 971.5 | 815.5 | 11.06 | 73.758 | | | | |
| 3,100.0 | 3,092.0 | 3,030.6 | 3,019.2 | 6.5 | 6.8 | 34.78 | 114.2 | 980.4 | 817.6 | 11.44 | 71.467 | | | | |
| 3,200.0 | 3,191.6 | 3,130.6 | 3,118.7 | 6.7 | 7.0 | 34.78 | 118.9 | 989.3 | 819.8 | 11.83 | 69.325 | | | | |
| 3,300.0 | 3,291.3 | 3,230.6 | 3,218.1 | 7.0 | 7.3 | 34.77 | 123.6 | 998.2 | 822.0 | 12.21 | 67.317 | | | | |
| 3,400.0 | 3,390.9 | 3,330.6 | 3,317.6 | 7.2 | 7.5 | 34.77 | 128.4 | 1,007.1 | 824.1 | 12.60 | 65.432 | | | | |
| 3,500.0 | 3,490.6 | 3,430.5 | 3,417.1 | 7.4 | 7.8 | 34.77 | 133.1 | 1,016.0 | 826.3 | 12.98 | 63.658 | | | | |
| 3,600.0 | 3,590.3 | 3,530.5 | 3,516.5 | 7.6 | 8.0 | 34.76 | 137.8 | 1,024.9 | 828.5 | 13.37 | 61.986 | | | | |
| 3,700.0 | 3,689.9 | 3,630.5 | 3,616.0 | 7.9 | 8.2 | 34.76 | 142.6 | 1,033.8 | 830.7 | 13.75 | 60.408 | | | | |
| 3,800.0 | 3,789.6 | 3,730.5 | 3,715.5 | 8.1 | 8.5 | 34.76 | 147.3 | 1,042.7 | 832.8 | 14.14 | 58.916 | | | | |
| 3,900.0 | 3,889.3 | 3,830.4 | 3,814.9 | 8.3 | 8.7 | 34.75 | 152.0 | 1,051.5 | 835.0 | 14.52 | 57.502 | | | | |
| 4,000.0 | 3,988.9 | 3,930.4 | 3,914.4 | 8.5 | 9.0 | 34.75 | 156.8 | 1,060.4 | 837.2 | 14.91 | 56.162 | | | | |
| 4,100.0 | 4,088.6 | 4,030.4 | 4,013.9 | 8.8 | 9.2 | 34.75 | 161.5 | 1,069.3 | 839.3 | 15.29 | 54.889 | | | | |
| 4,200.0 | 4,188.2 | 4,130.4 | 4,113.3 | 9.0 | 9.5 | 34.74 | 166.2 | 1,078.2 | 841.5 | 15.68 | 53.679 | | | | |
| 4,300.0 | 4,287.9 | 4,230.3 | 4,212.8 | 9.2 | 9.7 | 34.74 | 171.0 | 1,087.1 | 843.7 | 16.06 | 52.526 | | | | |
| 4,400.0 | 4,387.6 | 4,330.3 | 4,312.3 | 9.4 | 10.0 | 34.74 | 175.7 | 1,096.0 | 845.8 | 16.45 | 51.428 | | | | |
| 4,500.0 | 4,487.2 | 4,430.3 | 4,411.7 | 9.7 | 10.2 | 34.73 | 180.4 | 1,104.9 | 848.0 | 16.83 | 50.379 | | | | |
| 4,600.0 | 4,586.9 | 4,530.3 | 4,511.2 | 9.9 | 10.5 | 34.73 | 185.2 | 1,113.8 | 850.2 | 17.22 | 49.378 | | | | |
| 4,700.0 | 4,686.6 | 4,630.3 | 4,610.7 | 10.1 | 10.7 | 34.73 | 189.9 | 1,122.7 | 852.3 | 17.60 | 48.420 | | | | |
| 4,800.0 | 4,786.2 | 4,730.2 | 4,710.1 | 10.3 | 11.0 | 34.72 | 194.6 | 1,131.6 | 854.5 | 17.99 | 47.504 | | | | |
| 4,900.0 | 4,885.9 | 4,830.2 | 4,809.6 | 10.6 | 11.2 | 34.72 | 199.4 | 1,140.5 | 856.7 | 18.37 | 46.625 | | | | |
| 5,000.0 | 4,985.5 | 4,930.2 | 4,909.1 | 10.8 | 11.5 | 34.72 | 204.1 | 1,149.4 | 858.8 | 18.76 | 45.783 | | | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1H-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | Warning | |
| 5,100.0 | 5,085.2 | 5,030.2 | 5,008.5 | 11.0 | 11.7 | 34.71 | 208.8 | 1,158.3 | 861.0 | 841.9 | 19.14 | 44.975 | | |
| 5,200.0 | 5,184.9 | 5,130.1 | 5,108.0 | 11.2 | 12.0 | 34.71 | 213.6 | 1,167.2 | 863.2 | 843.6 | 19.53 | 44.199 | | |
| 5,300.0 | 5,284.5 | 5,230.1 | 5,207.5 | 11.5 | 12.2 | 34.71 | 218.3 | 1,176.1 | 865.3 | 845.4 | 19.91 | 43.452 | | |
| 5,400.0 | 5,384.2 | 5,330.1 | 5,307.0 | 11.7 | 12.5 | 34.70 | 223.0 | 1,185.0 | 867.5 | 847.2 | 20.30 | 42.734 | | |
| 5,500.0 | 5,483.9 | 5,430.1 | 5,406.4 | 11.9 | 12.7 | 34.70 | 227.8 | 1,193.8 | 869.7 | 849.0 | 20.69 | 42.043 | | |
| 5,600.0 | 5,583.5 | 5,530.0 | 5,505.9 | 12.1 | 12.9 | 34.70 | 232.5 | 1,202.7 | 871.8 | 850.8 | 21.07 | 41.377 | | |
| 5,700.0 | 5,683.2 | 5,630.0 | 5,605.4 | 12.4 | 13.2 | 34.70 | 237.2 | 1,211.6 | 874.0 | 852.6 | 21.46 | 40.735 | | |
| 5,800.0 | 5,782.9 | 5,730.0 | 5,704.8 | 12.6 | 13.4 | 34.69 | 242.0 | 1,220.5 | 876.2 | 854.3 | 21.84 | 40.115 | | |
| 5,900.0 | 5,882.5 | 5,830.0 | 5,804.3 | 12.8 | 13.7 | 34.69 | 246.7 | 1,229.4 | 878.4 | 856.1 | 22.23 | 39.517 | | |
| 6,000.0 | 5,982.2 | 5,929.9 | 5,903.8 | 13.0 | 13.9 | 34.69 | 251.4 | 1,238.3 | 880.5 | 857.9 | 22.61 | 38.940 | | |
| 6,100.0 | 6,081.8 | 6,029.9 | 6,003.2 | 13.3 | 14.2 | 34.68 | 256.2 | 1,247.2 | 882.7 | 859.7 | 23.00 | 38.382 | | |
| 6,200.0 | 6,181.5 | 6,129.9 | 6,102.7 | 13.5 | 14.4 | 34.68 | 260.9 | 1,256.1 | 884.9 | 861.5 | 23.38 | 37.842 | | |
| 6,300.0 | 6,281.2 | 6,229.9 | 6,202.2 | 13.7 | 14.7 | 34.68 | 265.6 | 1,265.0 | 887.0 | 863.3 | 23.77 | 37.320 | | |
| 6,400.0 | 6,380.9 | 6,329.8 | 6,301.6 | 13.9 | 14.9 | -46.13 | 264.8 | 1,273.9 | 889.2 | 865.1 | 24.06 | 36.953 | | |
| 6,500.0 | 6,479.6 | 6,429.7 | 6,400.0 | 14.0 | 15.0 | -71.73 | 250.2 | 1,282.7 | 891.3 | 867.2 | 24.18 | 36.863 | | |
| 6,600.0 | 6,575.4 | 6,529.5 | 6,495.2 | 14.0 | 15.1 | -78.31 | 222.1 | 1,291.2 | 893.4 | 869.3 | 24.16 | 36.980 | | |
| 6,700.0 | 6,666.4 | 6,629.2 | 6,585.6 | 14.1 | 15.1 | -81.09 | 180.9 | 1,299.3 | 895.4 | 871.3 | 24.07 | 37.202 | | |
| 6,800.0 | 6,750.9 | 6,728.8 | 6,669.4 | 14.1 | 15.2 | -82.54 | 127.7 | 1,306.8 | 897.3 | 873.3 | 24.00 | 37.390 | | |
| 6,900.0 | 6,827.2 | 6,828.4 | 6,744.9 | 14.1 | 15.3 | -83.38 | 63.3 | 1,313.5 | 898.9 | 874.9 | 24.05 | 37.376 | | |
| 7,000.0 | 6,893.9 | 6,927.9 | 6,810.8 | 14.3 | 15.5 | -83.89 | -10.9 | 1,319.4 | 900.4 | 876.0 | 24.34 | 36.989 | | |
| 7,100.0 | 6,949.6 | 7,027.3 | 6,865.8 | 14.6 | 15.8 | -84.21 | -93.5 | 1,324.4 | 901.6 | 876.6 | 24.96 | 36.116 | | |
| 7,200.0 | 6,993.2 | 7,126.8 | 6,908.9 | 15.1 | 16.2 | -84.41 | -183.0 | 1,328.2 | 902.5 | 876.6 | 25.98 | 34.739 | | |
| 7,300.0 | 7,023.9 | 7,226.2 | 6,939.2 | 15.7 | 16.8 | -84.53 | -277.5 | 1,330.9 | 903.2 | 875.8 | 27.41 | 32.955 | | |
| 7,400.0 | 7,041.1 | 7,325.5 | 6,956.2 | 16.5 | 17.6 | -84.59 | -375.3 | 1,332.4 | 903.6 | 874.4 | 29.21 | 30.931 | | |
| 7,500.0 | 7,045.0 | 7,425.1 | 6,960.0 | 17.5 | 18.5 | -84.60 | -474.7 | 1,332.8 | 903.7 | 872.4 | 31.33 | 28.845 | | |
| 7,600.0 | 7,045.0 | 7,525.1 | 6,960.0 | 18.5 | 19.5 | -84.60 | -574.7 | 1,332.8 | 903.7 | 870.0 | 33.65 | 26.853 | | |
| 7,700.0 | 7,045.0 | 7,625.1 | 6,960.0 | 19.7 | 20.6 | -84.60 | -674.7 | 1,332.8 | 903.7 | 867.5 | 36.17 | 24.987 | | |
| 7,800.0 | 7,045.0 | 7,725.1 | 6,960.0 | 20.9 | 21.8 | -84.60 | -774.7 | 1,332.8 | 903.7 | 864.9 | 38.83 | 23.273 | | |
| 7,900.0 | 7,045.0 | 7,825.1 | 6,960.0 | 22.2 | 23.0 | -84.60 | -874.7 | 1,332.8 | 903.7 | 862.1 | 41.62 | 21.714 | | |
| 8,000.0 | 7,045.0 | 7,925.1 | 6,960.0 | 23.6 | 24.4 | -84.60 | -974.7 | 1,332.8 | 903.7 | 859.2 | 44.51 | 20.305 | | |
| 8,100.0 | 7,045.0 | 8,025.1 | 6,960.0 | 25.0 | 25.7 | -84.60 | -1,074.7 | 1,332.8 | 903.7 | 856.2 | 47.47 | 19.036 | | |
| 8,200.0 | 7,045.0 | 8,125.1 | 6,960.0 | 26.5 | 27.2 | -84.60 | -1,174.7 | 1,332.8 | 903.7 | 853.2 | 50.51 | 17.892 | | |
| 8,300.0 | 7,045.0 | 8,225.1 | 6,960.0 | 27.9 | 28.6 | -84.60 | -1,274.7 | 1,332.8 | 903.7 | 850.1 | 53.60 | 16.860 | | |
| 8,400.0 | 7,045.0 | 8,325.1 | 6,960.0 | 29.5 | 30.1 | -84.60 | -1,374.7 | 1,332.8 | 903.7 | 847.0 | 56.74 | 15.927 | | |
| 8,500.0 | 7,045.0 | 8,425.1 | 6,960.0 | 31.0 | 31.6 | -84.60 | -1,474.7 | 1,332.8 | 903.7 | 843.8 | 59.92 | 15.083 | | |
| 8,600.0 | 7,045.0 | 8,525.1 | 6,960.0 | 32.6 | 33.2 | -84.60 | -1,574.7 | 1,332.8 | 903.7 | 840.6 | 63.13 | 14.316 | | |
| 8,700.0 | 7,045.0 | 8,625.1 | 6,960.0 | 34.2 | 34.7 | -84.60 | -1,674.7 | 1,332.8 | 903.7 | 837.4 | 66.37 | 13.617 | | |
| 8,800.0 | 7,045.0 | 8,725.1 | 6,960.0 | 35.8 | 36.3 | -84.60 | -1,774.7 | 1,332.8 | 903.7 | 834.1 | 69.63 | 12.979 | | |
| 8,900.0 | 7,045.0 | 8,825.1 | 6,960.0 | 37.4 | 37.9 | -84.60 | -1,874.7 | 1,332.8 | 903.7 | 830.8 | 72.92 | 12.394 | | |
| 9,000.0 | 7,045.0 | 8,925.1 | 6,960.0 | 39.0 | 39.5 | -84.60 | -1,974.7 | 1,332.8 | 903.7 | 827.5 | 76.22 | 11.857 | | |
| 9,100.0 | 7,045.0 | 9,025.1 | 6,960.0 | 40.6 | 41.1 | -84.60 | -2,074.7 | 1,332.8 | 903.7 | 824.2 | 79.54 | 11.362 | | |
| 9,200.0 | 7,045.0 | 9,125.1 | 6,960.0 | 42.3 | 42.7 | -84.60 | -2,174.7 | 1,332.8 | 903.7 | 820.9 | 82.87 | 10.905 | | |
| 9,300.0 | 7,045.0 | 9,225.1 | 6,960.0 | 43.9 | 44.4 | -84.60 | -2,274.7 | 1,332.8 | 903.7 | 817.5 | 86.22 | 10.482 | | |
| 9,400.0 | 7,045.0 | 9,325.1 | 6,960.0 | 45.6 | 46.0 | -84.60 | -2,374.7 | 1,332.8 | 903.7 | 814.2 | 89.58 | 10.089 | | |
| 9,500.0 | 7,045.0 | 9,425.1 | 6,960.0 | 47.3 | 47.7 | -84.60 | -2,474.7 | 1,332.8 | 903.7 | 810.8 | 92.95 | 9.723 | | |
| 9,600.0 | 7,045.0 | 9,525.1 | 6,960.0 | 48.9 | 49.3 | -84.60 | -2,574.7 | 1,332.9 | 903.7 | 807.4 | 96.32 | 9.383 | | |
| 9,700.0 | 7,045.0 | 9,625.1 | 6,960.0 | 50.6 | 51.0 | -84.60 | -2,674.7 | 1,332.9 | 903.7 | 804.0 | 99.71 | 9.064 | | |
| 9,800.0 | 7,045.0 | 9,725.1 | 6,960.0 | 52.3 | 52.7 | -84.60 | -2,774.7 | 1,332.9 | 903.8 | 800.7 | 103.10 | 8.766 | | |
| 9,900.0 | 7,045.0 | 9,825.1 | 6,960.0 | 54.0 | 54.4 | -84.60 | -2,874.7 | 1,332.9 | 903.8 | 797.3 | 106.50 | 8.486 | | |
| 10,000.0 | 7,045.0 | 9,925.1 | 6,960.0 | 55.7 | 56.0 | -84.60 | -2,974.7 | 1,332.9 | 903.8 | 793.9 | 109.90 | 8.223 | | |
| 10,100.0 | 7,045.0 | 10,025.1 | 6,960.0 | 57.4 | 57.7 | -84.60 | -3,074.7 | 1,332.9 | 903.8 | 790.5 | 113.31 | 7.976 | | |
| 10,200.0 | 7,045.0 | 10,125.1 | 6,960.0 | 59.1 | 59.4 | -84.60 | -3,174.7 | 1,332.9 | 903.8 | 787.0 | 116.72 | 7.743 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | S32-T2N-R64W (Newman) - Ruhl 1H-32H-B264 - Hz - Plan #1 | | | Offset Site Error: | | 0.0 ft |
|-----------------|----------------|----------------|----------------|-----------|--------|-------------------|------------------------|-----------------|------------------|------------------------|---|--------------|--|--------------------|--|--------|
| Survey Program: | | | | | | | | | | | 0-Geolink MWD | | | Offset Well Error: | | 0.0 ft |
| Reference | | | | Offset | | Semi Major Axis | | | Distance | | | | | | | |
| Measured Depth | Vertical Depth | Measured Depth | Vertical Depth | Reference | Offset | Highside Toolface | Offset Wellbore Centre | Between Centres | Between Ellipses | Total Uncertainty Axis | Separation Factor | Warning | | | | |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | +N/-S (ft) | +E/-W (ft) | (ft) | (ft) | | | | | | |
| 10,300.0 | 7,045.0 | 10,225.1 | 6,960.0 | 60.8 | 61.1 | -84.60 | -3,274.7 | 1,332.9 | 903.8 | 783.6 | 120.14 | 7.522 | | | | |
| 10,400.0 | 7,045.0 | 10,325.1 | 6,960.0 | 62.5 | 62.8 | -84.60 | -3,374.7 | 1,332.9 | 903.8 | 780.2 | 123.57 | 7.314 | | | | |
| 10,500.0 | 7,045.0 | 10,425.1 | 6,960.0 | 64.2 | 64.5 | -84.60 | -3,474.7 | 1,332.9 | 903.8 | 776.8 | 126.99 | 7.117 | | | | |
| 10,600.0 | 7,045.0 | 10,525.1 | 6,960.0 | 65.9 | 66.2 | -84.60 | -3,574.7 | 1,332.9 | 903.8 | 773.4 | 130.42 | 6.930 | | | | |
| 10,700.0 | 7,045.0 | 10,625.1 | 6,960.0 | 67.6 | 67.9 | -84.60 | -3,674.7 | 1,332.9 | 903.8 | 769.9 | 133.86 | 6.752 | | | | |
| 10,800.0 | 7,045.0 | 10,725.1 | 6,960.0 | 69.3 | 69.6 | -84.60 | -3,774.7 | 1,332.9 | 903.8 | 766.5 | 137.29 | 6.583 | | | | |
| 10,900.0 | 7,045.0 | 10,825.1 | 6,960.0 | 71.1 | 71.3 | -84.60 | -3,874.7 | 1,332.9 | 903.8 | 763.1 | 140.73 | 6.422 | | | | |
| 11,000.0 | 7,045.0 | 10,925.1 | 6,960.0 | 72.8 | 73.1 | -84.60 | -3,974.7 | 1,332.9 | 903.8 | 759.6 | 144.18 | 6.269 | | | | |
| 11,100.0 | 7,045.0 | 11,025.1 | 6,960.0 | 74.5 | 74.8 | -84.60 | -4,074.7 | 1,332.9 | 903.8 | 756.2 | 147.62 | 6.122 | | | | |
| 11,200.0 | 7,045.0 | 11,125.1 | 6,960.0 | 76.2 | 76.5 | -84.60 | -4,174.7 | 1,332.9 | 903.8 | 752.7 | 151.07 | 5.983 | | | | |
| 11,300.0 | 7,045.0 | 11,225.1 | 6,960.0 | 77.9 | 78.2 | -84.60 | -4,274.7 | 1,332.9 | 903.8 | 749.3 | 154.52 | 5.849 | | | | |
| 11,400.0 | 7,045.0 | 11,325.1 | 6,960.0 | 79.7 | 79.9 | -84.60 | -4,374.7 | 1,332.9 | 903.8 | 745.8 | 157.97 | 5.721 | | | | |
| 11,500.0 | 7,045.0 | 11,425.1 | 6,960.0 | 81.4 | 81.6 | -84.60 | -4,474.7 | 1,332.9 | 903.8 | 742.4 | 161.42 | 5.599 | | | | |
| 11,579.4 | 7,045.0 | 11,504.5 | 6,960.0 | 82.8 | 83.0 | -84.60 | -4,554.1 | 1,332.9 | 903.8 | 739.6 | 164.16 | 5.506 ES, SF | | | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1D-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|---------|------------|--------------------|--------|
| Survey Program: O-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 89.76 | 3.3 | 782.1 | 782.2 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | 89.76 | 3.3 | 782.1 | 782.2 | 781.8 | 0.35 | 2,240.703 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | 89.76 | 3.3 | 782.1 | 782.2 | 781.5 | 0.70 | 1,120.351 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | 89.76 | 3.3 | 782.1 | 782.2 | 781.1 | 1.05 | 746.901 | | |
| 333.3 | 333.3 | 333.3 | 333.3 | 0.6 | 0.6 | 89.76 | 3.3 | 782.1 | 782.2 | 781.0 | 1.16 | 672.209 CC | | |
| 400.0 | 400.0 | 394.3 | 394.3 | 0.7 | 0.7 | 89.75 | 3.4 | 782.3 | 782.3 | 780.9 | 1.39 | 564.297 ES | | |
| 500.0 | 500.0 | 483.0 | 483.0 | 0.9 | 0.8 | 34.58 | 3.8 | 783.6 | 783.1 | 781.3 | 1.72 | 456.358 | | |
| 600.0 | 600.0 | 571.6 | 571.6 | 1.1 | 1.0 | 34.60 | 4.8 | 786.2 | 783.8 | 781.8 | 2.05 | 382.982 | | |
| 700.0 | 699.9 | 660.3 | 660.1 | 1.2 | 1.2 | 34.65 | 6.3 | 790.0 | 784.6 | 782.2 | 2.38 | 329.673 | | |
| 800.0 | 799.7 | 748.9 | 748.6 | 1.4 | 1.3 | 34.73 | 8.2 | 795.1 | 785.3 | 782.6 | 2.72 | 289.031 | | |
| 900.0 | 899.4 | 837.5 | 837.0 | 1.6 | 1.5 | 34.84 | 10.7 | 801.5 | 786.2 | 783.1 | 3.06 | 256.947 | | |
| 1,000.0 | 999.0 | 926.1 | 925.2 | 1.8 | 1.7 | 34.93 | 13.6 | 809.2 | 788.1 | 784.7 | 3.41 | 231.334 | | |
| 1,100.0 | 1,098.7 | 1,014.7 | 1,013.2 | 2.1 | 1.9 | 34.98 | 17.0 | 818.1 | 791.5 | 787.7 | 3.76 | 210.660 | | |
| 1,200.0 | 1,198.4 | 1,105.8 | 1,103.6 | 2.3 | 2.2 | 35.00 | 21.0 | 828.6 | 796.3 | 792.1 | 4.12 | 193.490 | | |
| 1,300.0 | 1,298.0 | 1,205.7 | 1,202.7 | 2.5 | 2.4 | 35.01 | 25.5 | 840.5 | 801.5 | 797.0 | 4.49 | 178.440 | | |
| 1,400.0 | 1,397.7 | 1,305.5 | 1,301.7 | 2.7 | 2.7 | 35.02 | 30.1 | 852.4 | 806.7 | 801.8 | 4.87 | 165.667 | | |
| 1,500.0 | 1,497.3 | 1,405.4 | 1,400.8 | 2.9 | 3.0 | 35.02 | 34.6 | 864.3 | 811.9 | 806.6 | 5.25 | 154.700 | | |
| 1,600.0 | 1,597.0 | 1,505.2 | 1,499.8 | 3.1 | 3.2 | 35.03 | 39.1 | 876.2 | 817.1 | 811.5 | 5.63 | 145.186 | | |
| 1,700.0 | 1,696.7 | 1,605.1 | 1,598.8 | 3.4 | 3.5 | 35.04 | 43.7 | 888.1 | 822.3 | 816.3 | 6.01 | 136.858 | | |
| 1,800.0 | 1,796.3 | 1,705.0 | 1,697.9 | 3.6 | 3.8 | 35.05 | 48.2 | 900.0 | 827.5 | 821.1 | 6.39 | 129.509 | | |
| 1,900.0 | 1,896.0 | 1,804.8 | 1,796.9 | 3.8 | 4.0 | 35.06 | 52.7 | 911.9 | 832.7 | 825.9 | 6.77 | 122.979 | | |
| 2,000.0 | 1,995.7 | 1,904.7 | 1,896.0 | 4.0 | 4.3 | 35.06 | 57.3 | 923.8 | 837.9 | 830.8 | 7.15 | 117.138 | | |
| 2,100.0 | 2,095.3 | 2,004.6 | 1,995.0 | 4.3 | 4.6 | 35.07 | 61.8 | 935.7 | 843.1 | 835.6 | 7.54 | 111.883 | | |
| 2,200.0 | 2,195.0 | 2,104.4 | 2,094.1 | 4.5 | 4.9 | 35.08 | 66.3 | 947.6 | 848.3 | 840.4 | 7.92 | 107.132 | | |
| 2,300.0 | 2,294.7 | 2,204.3 | 2,193.1 | 4.7 | 5.2 | 35.09 | 70.9 | 959.6 | 853.5 | 845.2 | 8.30 | 102.816 | | |
| 2,400.0 | 2,394.3 | 2,304.2 | 2,292.2 | 4.9 | 5.4 | 35.09 | 75.4 | 971.5 | 858.7 | 850.0 | 8.68 | 98.877 | | |
| 2,500.0 | 2,494.0 | 2,404.0 | 2,391.2 | 5.2 | 5.7 | 35.10 | 79.9 | 983.4 | 863.9 | 854.9 | 9.07 | 95.269 | | |
| 2,600.0 | 2,593.6 | 2,503.9 | 2,490.3 | 5.4 | 6.0 | 35.11 | 84.5 | 995.3 | 869.1 | 859.7 | 9.45 | 91.952 | | |
| 2,700.0 | 2,693.3 | 2,603.8 | 2,589.3 | 5.6 | 6.3 | 35.11 | 89.0 | 1,007.2 | 874.3 | 864.5 | 9.84 | 88.892 | | |
| 2,800.0 | 2,793.0 | 2,703.6 | 2,688.4 | 5.8 | 6.6 | 35.12 | 93.5 | 1,019.1 | 879.6 | 869.3 | 10.22 | 86.061 | | |
| 2,900.0 | 2,892.6 | 2,803.5 | 2,787.4 | 6.1 | 6.8 | 35.13 | 98.1 | 1,031.0 | 884.8 | 874.2 | 10.60 | 83.434 | | |
| 3,000.0 | 2,992.3 | 2,903.3 | 2,886.5 | 6.3 | 7.1 | 35.14 | 102.6 | 1,042.9 | 890.0 | 879.0 | 10.99 | 80.989 | | |
| 3,100.0 | 3,092.0 | 3,003.2 | 2,985.5 | 6.5 | 7.4 | 35.14 | 107.1 | 1,054.8 | 895.2 | 883.8 | 11.37 | 78.709 | | |
| 3,200.0 | 3,191.6 | 3,103.1 | 3,084.6 | 6.7 | 7.7 | 35.15 | 111.7 | 1,066.7 | 900.4 | 888.6 | 11.76 | 76.577 | | |
| 3,300.0 | 3,291.3 | 3,202.9 | 3,183.6 | 7.0 | 8.0 | 35.16 | 116.2 | 1,078.6 | 905.6 | 893.4 | 12.14 | 74.580 | | |
| 3,400.0 | 3,390.9 | 3,302.8 | 3,282.7 | 7.2 | 8.2 | 35.16 | 120.7 | 1,090.5 | 910.8 | 898.3 | 12.53 | 72.704 | | |
| 3,500.0 | 3,490.6 | 3,402.7 | 3,381.7 | 7.4 | 8.5 | 35.17 | 125.3 | 1,102.4 | 916.0 | 903.1 | 12.91 | 70.940 | | |
| 3,600.0 | 3,590.3 | 3,502.5 | 3,480.8 | 7.6 | 8.8 | 35.17 | 129.8 | 1,114.3 | 921.2 | 907.9 | 13.30 | 69.278 | | |
| 3,700.0 | 3,689.9 | 3,602.4 | 3,579.8 | 7.9 | 9.1 | 35.18 | 134.3 | 1,126.2 | 926.4 | 912.7 | 13.68 | 67.709 | | |
| 3,800.0 | 3,789.6 | 3,702.3 | 3,678.9 | 8.1 | 9.4 | 35.19 | 138.9 | 1,138.1 | 931.6 | 917.5 | 14.07 | 66.225 | | |
| 3,900.0 | 3,889.3 | 3,802.1 | 3,777.9 | 8.3 | 9.7 | 35.19 | 143.4 | 1,150.0 | 936.8 | 922.4 | 14.45 | 64.820 | | |
| 4,000.0 | 3,988.9 | 3,902.0 | 3,877.0 | 8.5 | 9.9 | 35.20 | 147.9 | 1,161.9 | 942.0 | 927.2 | 14.84 | 63.488 | | |
| 4,100.0 | 4,088.6 | 4,001.9 | 3,976.0 | 8.8 | 10.2 | 35.21 | 152.5 | 1,173.8 | 947.2 | 932.0 | 15.22 | 62.223 | | |
| 4,200.0 | 4,188.2 | 4,101.7 | 4,075.1 | 9.0 | 10.5 | 35.21 | 157.0 | 1,185.7 | 952.4 | 936.8 | 15.61 | 61.020 | | |
| 4,300.0 | 4,287.9 | 4,201.6 | 4,174.1 | 9.2 | 10.8 | 35.22 | 161.5 | 1,197.6 | 957.6 | 941.6 | 15.99 | 59.875 | | |
| 4,400.0 | 4,387.6 | 4,301.4 | 4,273.2 | 9.4 | 11.1 | 35.22 | 166.1 | 1,209.5 | 962.8 | 946.5 | 16.38 | 58.784 | | |
| 4,500.0 | 4,487.2 | 4,401.3 | 4,372.2 | 9.7 | 11.4 | 35.23 | 170.6 | 1,221.4 | 968.1 | 951.3 | 16.77 | 57.742 | | |
| 4,600.0 | 4,586.9 | 4,501.2 | 4,471.3 | 9.9 | 11.6 | 35.23 | 175.1 | 1,233.3 | 973.3 | 956.1 | 17.15 | 56.747 | | |
| 4,700.0 | 4,686.6 | 4,601.0 | 4,570.3 | 10.1 | 11.9 | 35.24 | 179.7 | 1,245.2 | 978.5 | 960.9 | 17.54 | 55.796 | | |
| 4,800.0 | 4,786.2 | 4,700.9 | 4,669.4 | 10.3 | 12.2 | 35.25 | 184.2 | 1,257.1 | 983.7 | 965.7 | 17.92 | 54.886 | | |
| 4,900.0 | 4,885.9 | 4,800.8 | 4,768.4 | 10.6 | 12.5 | 35.25 | 188.7 | 1,269.0 | 988.9 | 970.6 | 18.31 | 54.014 | | |
| 5,000.0 | 4,985.5 | 4,900.6 | 4,867.5 | 10.8 | 12.8 | 35.26 | 193.3 | 1,280.9 | 994.1 | 975.4 | 18.69 | 53.178 | | |

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| | | | | | | | | | | | | | |
|--|----------------|----------------|----------------|-----------------|--------|-------------------|------------------------------|---------|-----------------|------------------|------------------------|-------------------|----------------------------------|
| Offset Design S32-T2N-R64W (Newman) - Ruhl 1I-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: 0.0 ft |
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Distance | | | | | | | Warning |
| Measured Depth | Vertical Depth | Measured Depth | Vertical Depth | Reference | Offset | Highside Toolface | Offset Wellbore Centre +N/-S | +E/-W | Between Centres | Between Ellipses | Total Uncertainty Axis | Separation Factor | |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | (ft) | (ft) | (ft) | (ft) | | | |
| 5,100.0 | 5,085.2 | 5,000.5 | 4,966.5 | 11.0 | 13.1 | 35.26 | 197.8 | 1,292.8 | 999.3 | 980.2 | 19.08 | 52.375 SF | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1J-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|------------------------------|----------------------|---------|----------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 89.76 | 3.3 | 792.2 | 792.2 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | 89.76 | 3.3 | 792.2 | 792.2 | 791.9 | 0.35 | 2,269.552 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | 89.76 | 3.3 | 792.2 | 792.2 | 791.5 | 0.70 | 1,134.776 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | 89.76 | 3.3 | 792.2 | 792.2 | 791.2 | 1.05 | 756.517 CC, ES | | |
| 400.0 | 400.0 | 388.3 | 388.3 | 0.7 | 0.7 | 89.75 | 3.5 | 792.9 | 793.0 | 791.6 | 1.38 | 576.253 | | |
| 500.0 | 500.0 | 476.6 | 476.5 | 0.9 | 0.8 | 34.56 | 4.1 | 794.8 | 794.5 | 792.8 | 1.70 | 466.010 | | |
| 600.0 | 600.0 | 564.8 | 564.7 | 1.1 | 1.0 | 34.58 | 5.1 | 798.1 | 796.0 | 794.0 | 2.03 | 391.175 | | |
| 700.0 | 699.9 | 653.0 | 652.8 | 1.2 | 1.2 | 34.63 | 6.4 | 802.6 | 797.6 | 795.2 | 2.37 | 336.903 | | |
| 800.0 | 799.7 | 741.2 | 740.8 | 1.4 | 1.3 | 34.72 | 8.2 | 808.5 | 799.2 | 796.5 | 2.70 | 295.594 | | |
| 900.0 | 899.4 | 829.4 | 828.6 | 1.6 | 1.5 | 34.84 | 10.4 | 815.6 | 800.9 | 797.9 | 3.04 | 263.034 | | |
| 1,000.0 | 999.0 | 917.5 | 916.3 | 1.8 | 1.7 | 34.95 | 12.9 | 824.1 | 803.8 | 800.4 | 3.39 | 237.082 | | |
| 1,100.0 | 1,098.7 | 1,000.0 | 998.3 | 2.1 | 1.9 | 35.03 | 15.6 | 833.1 | 808.1 | 804.4 | 3.73 | 216.763 | | |
| 1,200.0 | 1,198.4 | 1,093.5 | 1,091.0 | 2.3 | 2.2 | 35.09 | 19.1 | 844.7 | 813.9 | 809.8 | 4.09 | 199.033 | | |
| 1,300.0 | 1,298.0 | 1,181.3 | 1,177.8 | 2.5 | 2.5 | 35.11 | 22.8 | 857.0 | 821.1 | 816.7 | 4.44 | 184.836 | | |
| 1,400.0 | 1,397.7 | 1,274.8 | 1,270.1 | 2.7 | 2.7 | 35.12 | 27.1 | 871.2 | 829.6 | 824.8 | 4.81 | 172.554 | | |
| 1,500.0 | 1,497.3 | 1,374.4 | 1,368.4 | 2.9 | 3.0 | 35.12 | 31.7 | 886.6 | 838.4 | 833.2 | 5.19 | 161.642 | | |
| 1,600.0 | 1,597.0 | 1,474.0 | 1,466.8 | 3.1 | 3.4 | 35.11 | 36.3 | 901.9 | 847.1 | 841.5 | 5.57 | 152.187 | | |
| 1,700.0 | 1,696.7 | 1,573.6 | 1,565.1 | 3.4 | 3.7 | 35.11 | 40.9 | 917.3 | 855.8 | 849.9 | 5.95 | 143.919 | | |
| 1,800.0 | 1,796.3 | 1,673.3 | 1,663.4 | 3.6 | 4.0 | 35.11 | 45.6 | 932.6 | 864.5 | 858.2 | 6.33 | 136.631 | | |
| 1,900.0 | 1,896.0 | 1,772.9 | 1,761.7 | 3.8 | 4.3 | 35.11 | 50.2 | 948.0 | 873.2 | 866.5 | 6.71 | 130.159 | | |
| 2,000.0 | 1,995.7 | 1,872.5 | 1,860.0 | 4.0 | 4.6 | 35.11 | 54.8 | 963.3 | 882.0 | 874.9 | 7.09 | 124.377 | | |
| 2,100.0 | 2,095.3 | 1,972.1 | 1,958.4 | 4.3 | 5.0 | 35.11 | 59.4 | 978.7 | 890.7 | 883.2 | 7.47 | 119.179 | | |
| 2,200.0 | 2,195.0 | 2,071.7 | 2,056.7 | 4.5 | 5.3 | 35.10 | 64.0 | 994.0 | 899.4 | 891.5 | 7.86 | 114.482 | | |
| 2,300.0 | 2,294.7 | 2,171.3 | 2,155.0 | 4.7 | 5.6 | 35.10 | 68.7 | 1,009.4 | 908.1 | 899.9 | 8.24 | 110.218 | | |
| 2,400.0 | 2,394.3 | 2,271.0 | 2,253.3 | 4.9 | 5.9 | 35.10 | 73.3 | 1,024.7 | 916.8 | 908.2 | 8.62 | 106.330 | | |
| 2,500.0 | 2,494.0 | 2,370.6 | 2,351.6 | 5.2 | 6.3 | 35.10 | 77.9 | 1,040.1 | 925.6 | 916.6 | 9.01 | 102.770 | | |
| 2,600.0 | 2,593.6 | 2,470.2 | 2,450.0 | 5.4 | 6.6 | 35.10 | 82.5 | 1,055.4 | 934.3 | 924.9 | 9.39 | 99.499 | | |
| 2,700.0 | 2,693.3 | 2,569.8 | 2,548.3 | 5.6 | 6.9 | 35.10 | 87.2 | 1,070.8 | 943.0 | 933.2 | 9.77 | 96.484 | | |
| 2,800.0 | 2,793.0 | 2,669.4 | 2,646.6 | 5.8 | 7.2 | 35.10 | 91.8 | 1,086.1 | 951.7 | 941.6 | 10.16 | 93.695 | | |
| 2,900.0 | 2,892.6 | 2,769.1 | 2,744.9 | 6.1 | 7.6 | 35.09 | 96.4 | 1,101.5 | 960.4 | 949.9 | 10.54 | 91.108 | | |
| 3,000.0 | 2,992.3 | 2,868.7 | 2,843.2 | 6.3 | 7.9 | 35.09 | 101.0 | 1,116.8 | 969.2 | 958.2 | 10.93 | 88.702 | | |
| 3,100.0 | 3,092.0 | 2,968.3 | 2,941.6 | 6.5 | 8.2 | 35.09 | 105.6 | 1,132.2 | 977.9 | 966.6 | 11.31 | 86.458 | | |
| 3,200.0 | 3,191.6 | 3,067.9 | 3,039.9 | 6.7 | 8.6 | 35.09 | 110.3 | 1,147.5 | 986.6 | 974.9 | 11.69 | 84.362 | | |
| 3,300.0 | 3,291.3 | 3,167.5 | 3,138.2 | 7.0 | 8.9 | 35.09 | 114.9 | 1,162.9 | 995.3 | 983.2 | 12.08 | 82.398 SF | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1K-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|------------------------|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Total Uncertainty Axis | Separation Factor | Warning | |
| Measured Depth (ft) | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft) | Offset (ft) | | +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 89.76 | 3.3 | 802.0 | 802.0 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | 89.76 | 3.3 | 802.0 | 802.0 | 801.7 | 0.35 | 2,297.601 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | 89.76 | 3.3 | 802.0 | 802.0 | 801.3 | 0.70 | 1,148.800 | | |
| 233.3 | 233.3 | 233.3 | 233.3 | 0.4 | 0.4 | 89.76 | 3.3 | 802.0 | 802.0 | 801.2 | 0.81 | 984.686 CC | | |
| 300.0 | 300.0 | 294.0 | 294.0 | 0.5 | 0.5 | 89.76 | 3.4 | 802.2 | 802.2 | 801.2 | 1.04 | 773.755 ES | | |
| 400.0 | 400.0 | 382.0 | 382.0 | 0.7 | 0.7 | 89.74 | 3.7 | 803.5 | 803.7 | 802.3 | 1.37 | 588.514 | | |
| 500.0 | 500.0 | 470.0 | 469.9 | 0.9 | 0.8 | 34.55 | 4.3 | 806.1 | 806.0 | 804.3 | 1.69 | 475.939 | | |
| 600.0 | 600.0 | 557.9 | 557.7 | 1.1 | 1.0 | 34.56 | 5.3 | 810.0 | 808.3 | 806.3 | 2.02 | 399.554 | | |
| 700.0 | 699.9 | 645.8 | 645.5 | 1.2 | 1.2 | 34.61 | 6.6 | 815.3 | 810.7 | 808.3 | 2.35 | 344.258 | | |
| 800.0 | 799.7 | 733.6 | 733.1 | 1.4 | 1.4 | 34.70 | 8.2 | 821.8 | 813.1 | 810.4 | 2.69 | 302.233 | | |
| 900.0 | 899.4 | 821.4 | 820.5 | 1.6 | 1.5 | 34.83 | 10.1 | 829.7 | 815.7 | 812.6 | 3.03 | 269.152 | | |
| 1,000.0 | 999.0 | 909.2 | 907.8 | 1.8 | 1.8 | 34.96 | 12.3 | 838.8 | 819.4 | 816.0 | 3.37 | 242.818 | | |
| 1,100.0 | 1,098.7 | 1,000.0 | 997.9 | 2.1 | 2.0 | 35.07 | 14.9 | 849.6 | 824.5 | 820.8 | 3.73 | 221.272 | | |
| 1,200.0 | 1,198.4 | 1,084.4 | 1,081.4 | 2.3 | 2.2 | 35.15 | 17.7 | 860.9 | 831.2 | 827.1 | 4.07 | 204.259 | | |
| 1,300.0 | 1,298.0 | 1,171.7 | 1,167.7 | 2.5 | 2.5 | 35.21 | 20.8 | 873.9 | 839.3 | 834.9 | 4.42 | 189.899 | | |
| 1,400.0 | 1,397.7 | 1,258.8 | 1,253.6 | 2.7 | 2.8 | 35.25 | 24.3 | 888.1 | 849.0 | 844.2 | 4.77 | 177.892 | | |
| 1,500.0 | 1,497.3 | 1,345.6 | 1,339.0 | 2.9 | 3.1 | 35.26 | 28.1 | 903.5 | 860.0 | 854.9 | 5.13 | 167.773 | | |
| 1,600.0 | 1,597.0 | 1,437.9 | 1,429.4 | 3.1 | 3.4 | 35.26 | 32.4 | 921.0 | 872.4 | 866.9 | 5.49 | 158.863 | | |
| 1,700.0 | 1,696.7 | 1,537.1 | 1,526.6 | 3.4 | 3.8 | 35.25 | 37.0 | 940.1 | 885.0 | 879.2 | 5.87 | 150.740 | | |
| 1,800.0 | 1,796.3 | 1,636.3 | 1,623.9 | 3.6 | 4.2 | 35.23 | 41.7 | 959.3 | 897.6 | 891.4 | 6.25 | 143.587 | | |
| 1,900.0 | 1,896.0 | 1,735.5 | 1,721.1 | 3.8 | 4.5 | 35.23 | 46.3 | 978.4 | 910.2 | 903.6 | 6.63 | 137.240 | | |
| 2,000.0 | 1,995.7 | 1,834.7 | 1,818.3 | 4.0 | 4.9 | 35.22 | 51.0 | 997.5 | 922.8 | 915.8 | 7.01 | 131.574 | | |
| 2,100.0 | 2,095.3 | 1,933.9 | 1,915.6 | 4.3 | 5.3 | 35.21 | 55.7 | 1,016.6 | 935.5 | 928.1 | 7.40 | 126.485 | | |
| 2,200.0 | 2,195.0 | 2,033.1 | 2,012.8 | 4.5 | 5.7 | 35.20 | 60.3 | 1,035.7 | 948.1 | 940.3 | 7.78 | 121.890 | | |
| 2,300.0 | 2,294.7 | 2,132.3 | 2,110.0 | 4.7 | 6.1 | 35.19 | 65.0 | 1,054.8 | 960.7 | 952.5 | 8.16 | 117.721 | | |
| 2,400.0 | 2,394.3 | 2,231.5 | 2,207.3 | 4.9 | 6.4 | 35.18 | 69.6 | 1,073.9 | 973.3 | 964.7 | 8.54 | 113.922 | | |
| 2,500.0 | 2,494.0 | 2,330.7 | 2,304.5 | 5.2 | 6.8 | 35.17 | 74.3 | 1,093.0 | 985.9 | 977.0 | 8.93 | 110.447 | | |
| 2,600.0 | 2,593.6 | 2,429.9 | 2,401.7 | 5.4 | 7.2 | 35.16 | 79.0 | 1,112.1 | 998.5 | 989.2 | 9.31 | 107.255 SF | | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S32-T2N-R64W (Newman) - Ruhl 1L-32H-B264 - Hz - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 ft |
|---|----------------|----------------|----------------|-----------------|--------|-------------------|------------------------|------------|-----------------|------------------|------------------------|-------------------|--------------------|--------|
| Survey Program: 0-Geolink MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 ft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | |
| Measured Depth | Vertical Depth | Measured Depth | Vertical Depth | Reference | Offset | Highside Toolface | Offset Wellbore Centre | | Between Centres | Between Ellipses | Total Uncertainty Axis | Separation Factor | Warning | |
| (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (°) | +N/-S (ft) | +E/-W (ft) | (ft) | (ft) | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 89.79 | 3.0 | 812.1 | 812.1 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.2 | 0.2 | 89.79 | 3.0 | 812.1 | 812.1 | 811.7 | 0.35 | 2,326.447 | CC, ES | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | 89.79 | 3.0 | 812.1 | 812.1 | 811.4 | 0.70 | 1,163.223 | | |
| 300.0 | 300.0 | 287.8 | 287.8 | 0.5 | 0.5 | 89.78 | 3.1 | 812.7 | 812.8 | 811.8 | 1.03 | 792.020 | | |
| 400.0 | 400.0 | 375.5 | 375.5 | 0.7 | 0.7 | 89.75 | 3.5 | 814.7 | 815.1 | 813.7 | 1.36 | 601.140 | | |
| 500.0 | 500.0 | 463.2 | 463.2 | 0.9 | 0.8 | 34.56 | 4.2 | 818.0 | 818.1 | 816.4 | 1.68 | 486.433 | | |
| 600.0 | 600.0 | 550.9 | 550.7 | 1.1 | 1.0 | 34.57 | 5.1 | 822.6 | 821.2 | 819.2 | 2.01 | 408.357 | | |
| 700.0 | 699.9 | 638.5 | 638.1 | 1.2 | 1.2 | 34.62 | 6.3 | 828.5 | 824.4 | 822.0 | 2.34 | 351.938 | | |
| 800.0 | 799.7 | 726.1 | 725.3 | 1.4 | 1.4 | 34.71 | 7.8 | 835.7 | 827.6 | 824.9 | 2.68 | 309.118 | | |
| 900.0 | 899.4 | 813.6 | 812.4 | 1.6 | 1.6 | 34.84 | 9.6 | 844.2 | 831.0 | 827.9 | 3.02 | 275.451 | | |
| 1,000.0 | 999.0 | 900.0 | 898.3 | 1.8 | 1.8 | 34.98 | 11.5 | 853.9 | 835.5 | 832.1 | 3.36 | 248.813 | | |
| 1,100.0 | 1,098.7 | 988.3 | 985.8 | 2.1 | 2.0 | 35.11 | 13.8 | 865.1 | 841.5 | 837.8 | 3.70 | 227.125 | | |
| 1,200.0 | 1,198.4 | 1,075.4 | 1,072.0 | 2.3 | 2.3 | 35.21 | 16.4 | 877.5 | 848.9 | 844.9 | 4.05 | 209.514 | | |
| 1,300.0 | 1,298.0 | 1,162.4 | 1,157.9 | 2.5 | 2.6 | 35.29 | 19.2 | 891.1 | 857.9 | 853.5 | 4.40 | 194.946 | | |
| 1,400.0 | 1,397.7 | 1,249.1 | 1,243.2 | 2.7 | 2.9 | 35.35 | 22.2 | 905.9 | 868.3 | 863.6 | 4.75 | 182.772 | | |
| 1,500.0 | 1,497.3 | 1,335.5 | 1,328.1 | 2.9 | 3.2 | 35.39 | 25.5 | 921.9 | 880.3 | 875.2 | 5.10 | 172.514 | | |
| 1,600.0 | 1,597.0 | 1,421.6 | 1,412.3 | 3.1 | 3.5 | 35.41 | 29.0 | 939.2 | 893.6 | 888.2 | 5.46 | 163.813 | | |
| 1,700.0 | 1,696.7 | 1,509.7 | 1,498.3 | 3.4 | 3.9 | 35.42 | 32.9 | 958.1 | 908.4 | 902.6 | 5.81 | 156.271 | | |
| 1,800.0 | 1,796.3 | 1,608.5 | 1,594.7 | 3.6 | 4.3 | 35.41 | 37.3 | 979.7 | 923.7 | 917.5 | 6.19 | 149.177 | | |
| 1,900.0 | 1,896.0 | 1,707.4 | 1,691.0 | 3.8 | 4.7 | 35.41 | 41.8 | 1,001.3 | 939.0 | 932.4 | 6.57 | 142.886 | | |
| 2,000.0 | 1,995.7 | 1,806.2 | 1,787.3 | 4.0 | 5.1 | 35.41 | 46.2 | 1,023.0 | 954.2 | 947.3 | 6.95 | 137.271 | | |
| 2,100.0 | 2,095.3 | 1,905.0 | 1,883.6 | 4.3 | 5.5 | 35.41 | 50.7 | 1,044.6 | 969.5 | 962.2 | 7.33 | 132.229 | | |
| 2,200.0 | 2,195.0 | 2,003.8 | 1,980.0 | 4.5 | 5.9 | 35.40 | 55.1 | 1,066.2 | 984.8 | 977.1 | 7.71 | 127.678 | SF | |

Anticollision Report

| | | | |
|---------------------------|----------------------------|-------------------------------------|-----------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well Ruhl 1D-32H-B264 |
| Project: | DJ Wattenberg | TVD Reference: | KB @ 4955.0ft (No KB) |
| Reference Site: | S32-T2N-R64W (Newman) | MD Reference: | KB @ 4955.0ft (No KB) |
| Site Error: | 0.0ft | North Reference: | True |
| Reference Well: | Ruhl 1D-32H-B264 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0ft | Output errors are at | 2.00 sigma |
| Reference Wellbore | Hz | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #1 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to KB @ 4955.0ft (No KB)
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °

Coordinates are relative to: Ruhl 1D-32H-B264
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.60°

