

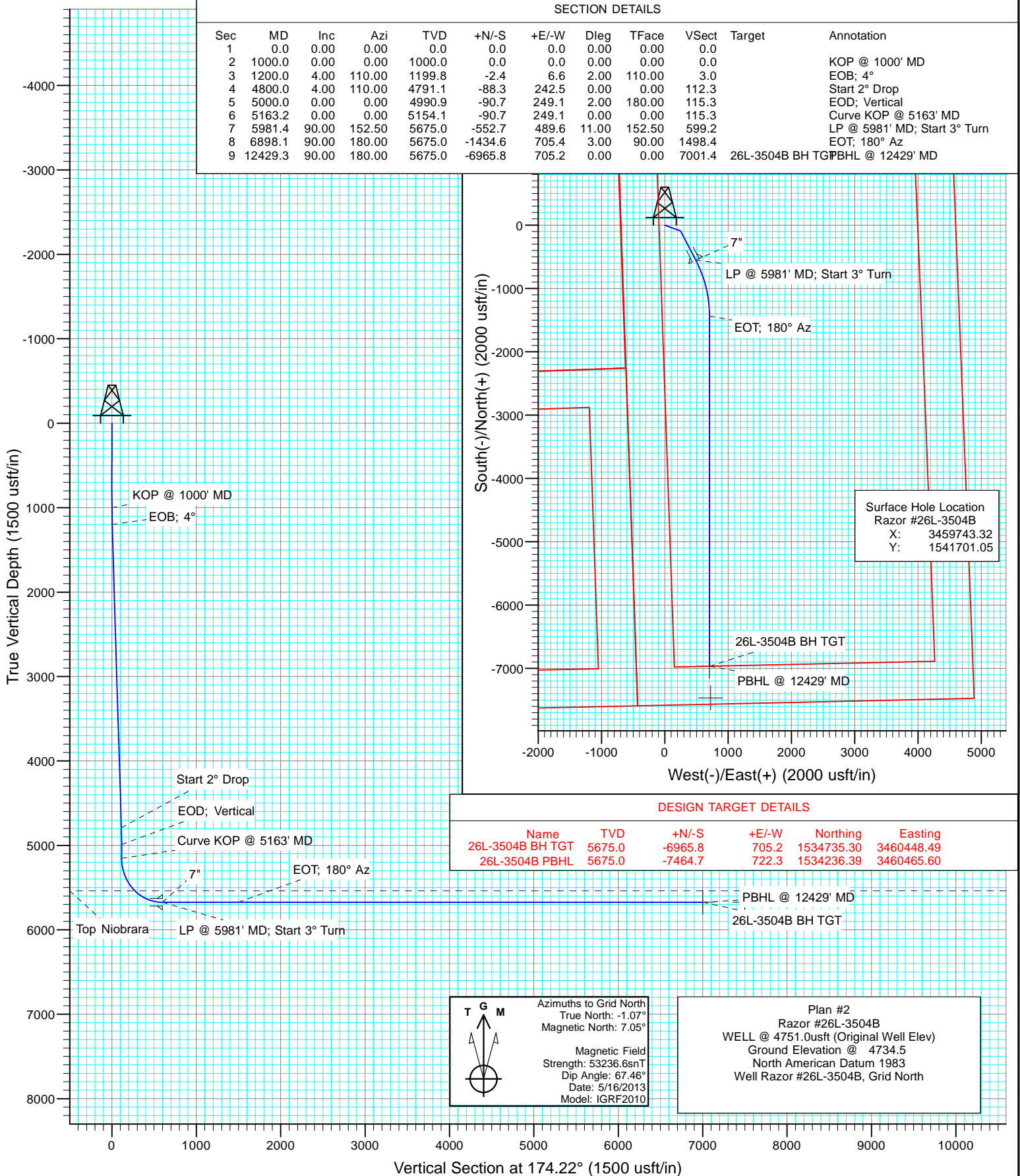


Project: Weld County, CO
Site: S26-T10N-R58W
Well: Razor #26L-3504B
Wellbore: HZ
Design: Plan #2



SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSec | Target | Annotation |
|-----|---------|-------|--------|--------|---------|-------|-------|--------|--------|------------------|------------------------------|
| 1 | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | | |
| 2 | 1000.0 | 0.00 | 0.00 | 1000.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | | KOP @ 1000' MD |
| 3 | 1200.0 | 4.00 | 110.00 | 1199.8 | -2.4 | 6.6 | 2.00 | 110.00 | 3.0 | | EOB; 4° |
| 4 | 4800.0 | 4.00 | 110.00 | 4791.1 | -88.3 | 242.5 | 0.00 | 0.00 | 112.3 | | Start 2° Drop |
| 5 | 5000.0 | 0.00 | 0.00 | 4990.9 | -90.7 | 249.1 | 2.00 | 180.00 | 115.3 | | EOD; Vertical |
| 6 | 5163.2 | 0.00 | 0.00 | 5154.1 | -90.7 | 249.1 | 0.00 | 0.00 | 115.3 | | Curve KOP @ 5163' MD |
| 7 | 5981.4 | 90.00 | 152.50 | 5675.0 | -552.7 | 489.6 | 11.00 | 152.50 | 599.2 | | LP @ 5981' MD; Start 3° Turn |
| 8 | 6898.1 | 90.00 | 180.00 | 5675.0 | -1434.6 | 705.4 | 3.00 | 90.00 | 1498.4 | | EOT; 180° Az |
| 9 | 12429.3 | 90.00 | 180.00 | 5675.0 | -6965.8 | 705.2 | 0.00 | 0.00 | 7001.4 | 26L-3504B BH TGT | PBHL @ 12429' MD |



| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Company: | Whiting Petroleum Corporation | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site: | S26-T10N-R58W | North Reference: | Grid |
| Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | HZ | | |
| Design: | Plan #2 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Weld County, CO | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | |
|-----------------------|----------|---------------|-------------------|-------------------|-------------------|
| Site | | S26-T10N-R58W | | | |
| Site Position: | | Northing: | 1,541,774.28 usft | Latitude: | 40° 48' 31.460 N |
| From: | Lat/Long | Easting: | 3,459,642.55 usft | Longitude: | 103° 50' 22.312 W |
| Position Uncertainty: | 0.0 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 1.07 ° |

| | | | | | | |
|----------------------|------------------|----------|---------------------|-------------------|---------------|-------------------|
| Well | Razor #26L-3504B | | | | | |
| Well Position | +N/-S | 0.0 usft | Northing: | 1,541,701.05 usft | Latitude: | 40° 48' 30.718 N |
| | +E/-W | 0.0 usft | Easting: | 3,459,743.32 usft | Longitude: | 103° 50' 21.019 W |
| Position Uncertainty | | 0.0 usft | Wellhead Elevation: | usft | Ground Level: | 4,734.5 usft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | HZ | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 5/16/2013 | 8.13 | 67.46 | 53,237 |

| | | | | |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| Design | Plan #2 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (usft) | +N/-S (usft) | +E/-W (usft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 174.22 |

| Plan Sections | | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,200.0 | 4.00 | 110.00 | 1,199.8 | -2.4 | 6.6 | 2.00 | 2.00 | 0.00 | 110.00 | |
| 4,800.0 | 4.00 | 110.00 | 4,791.1 | -88.3 | 242.5 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,000.0 | 0.00 | 0.00 | 4,990.9 | -90.7 | 249.1 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 5,163.2 | 0.00 | 0.00 | 5,154.1 | -90.7 | 249.1 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 5,981.4 | 90.00 | 152.50 | 5,675.0 | -552.7 | 489.6 | 11.00 | 11.00 | 0.00 | 152.50 | |
| 6,898.1 | 90.00 | 180.00 | 5,675.0 | -1,434.6 | 705.4 | 3.00 | 0.00 | 3.00 | 90.00 | |
| 12,429.3 | 90.00 | 180.00 | 5,675.0 | -6,965.8 | 705.2 | 0.00 | 0.00 | 0.00 | 0.00 | 26L-3504B BH TGT |

| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Company: | Whiting Petroleum Corporation | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site: | S26-T10N-R58W | North Reference: | Grid |
| Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | HZ | | |
| Design: | Plan #2 | | |

| Planned Survey | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|---------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100u) | 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 | |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 800.0 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | KOP @ 1000' MD |
| 1,100.0 | 2.00 | 110.00 | 1,100.0 | -0.6 | 1.6 | 0.8 | 2.00 | 2.00 | |
| 1,200.0 | 4.00 | 110.00 | 1,199.8 | -2.4 | 6.6 | 3.0 | 2.00 | 2.00 | EOB; 4° |
| 1,300.0 | 4.00 | 110.00 | 1,299.6 | -4.8 | 13.1 | 6.1 | 0.00 | 0.00 | |
| 1,400.0 | 4.00 | 110.00 | 1,399.3 | -7.2 | 19.7 | 9.1 | 0.00 | 0.00 | |
| 1,500.0 | 4.00 | 110.00 | 1,499.1 | -9.5 | 26.2 | 12.1 | 0.00 | 0.00 | |
| 1,600.0 | 4.00 | 110.00 | 1,598.9 | -11.9 | 32.8 | 15.2 | 0.00 | 0.00 | |
| 1,700.0 | 4.00 | 110.00 | 1,698.6 | -14.3 | 39.3 | 18.2 | 0.00 | 0.00 | |
| 1,800.0 | 4.00 | 110.00 | 1,798.4 | -16.7 | 45.9 | 21.2 | 0.00 | 0.00 | |
| 1,900.0 | 4.00 | 110.00 | 1,898.1 | -19.1 | 52.4 | 24.3 | 0.00 | 0.00 | |
| 2,000.0 | 4.00 | 110.00 | 1,997.9 | -21.5 | 59.0 | 27.3 | 0.00 | 0.00 | |
| 2,100.0 | 4.00 | 110.00 | 2,097.6 | -23.9 | 65.6 | 30.3 | 0.00 | 0.00 | |
| 2,200.0 | 4.00 | 110.00 | 2,197.4 | -26.2 | 72.1 | 33.4 | 0.00 | 0.00 | |
| 2,300.0 | 4.00 | 110.00 | 2,297.2 | -28.6 | 78.7 | 36.4 | 0.00 | 0.00 | |
| 2,400.0 | 4.00 | 110.00 | 2,396.9 | -31.0 | 85.2 | 39.4 | 0.00 | 0.00 | |
| 2,500.0 | 4.00 | 110.00 | 2,496.7 | -33.4 | 91.8 | 42.5 | 0.00 | 0.00 | |
| 2,600.0 | 4.00 | 110.00 | 2,596.4 | -35.8 | 98.3 | 45.5 | 0.00 | 0.00 | |
| 2,700.0 | 4.00 | 110.00 | 2,696.2 | -38.2 | 104.9 | 48.5 | 0.00 | 0.00 | |
| 2,800.0 | 4.00 | 110.00 | 2,795.9 | -40.6 | 111.4 | 51.6 | 0.00 | 0.00 | |
| 2,900.0 | 4.00 | 110.00 | 2,895.7 | -42.9 | 118.0 | 54.6 | 0.00 | 0.00 | |
| 3,000.0 | 4.00 | 110.00 | 2,995.4 | -45.3 | 124.5 | 57.6 | 0.00 | 0.00 | |
| 3,100.0 | 4.00 | 110.00 | 3,095.2 | -47.7 | 131.1 | 60.7 | 0.00 | 0.00 | |
| 3,200.0 | 4.00 | 110.00 | 3,195.0 | -50.1 | 137.7 | 63.7 | 0.00 | 0.00 | |
| 3,300.0 | 4.00 | 110.00 | 3,294.7 | -52.5 | 144.2 | 66.7 | 0.00 | 0.00 | |
| 3,400.0 | 4.00 | 110.00 | 3,394.5 | -54.9 | 150.8 | 69.8 | 0.00 | 0.00 | |
| 3,500.0 | 4.00 | 110.00 | 3,494.2 | -57.3 | 157.3 | 72.8 | 0.00 | 0.00 | |
| 3,600.0 | 4.00 | 110.00 | 3,594.0 | -59.6 | 163.9 | 75.8 | 0.00 | 0.00 | |
| 3,700.0 | 4.00 | 110.00 | 3,693.7 | -62.0 | 170.4 | 78.9 | 0.00 | 0.00 | |
| 3,800.0 | 4.00 | 110.00 | 3,793.5 | -64.4 | 177.0 | 81.9 | 0.00 | 0.00 | |
| 3,900.0 | 4.00 | 110.00 | 3,893.3 | -66.8 | 183.5 | 84.9 | 0.00 | 0.00 | |
| 4,000.0 | 4.00 | 110.00 | 3,993.0 | -69.2 | 190.1 | 88.0 | 0.00 | 0.00 | |
| 4,100.0 | 4.00 | 110.00 | 4,092.8 | -71.6 | 196.7 | 91.0 | 0.00 | 0.00 | |
| 4,200.0 | 4.00 | 110.00 | 4,192.5 | -74.0 | 203.2 | 94.1 | 0.00 | 0.00 | |
| 4,300.0 | 4.00 | 110.00 | 4,292.3 | -76.3 | 209.8 | 97.1 | 0.00 | 0.00 | |
| 4,400.0 | 4.00 | 110.00 | 4,392.0 | -78.7 | 216.3 | 100.1 | 0.00 | 0.00 | |
| 4,500.0 | 4.00 | 110.00 | 4,491.8 | -81.1 | 222.9 | 103.2 | 0.00 | 0.00 | |
| 4,600.0 | 4.00 | 110.00 | 4,591.5 | -83.5 | 229.4 | 106.2 | 0.00 | 0.00 | |
| 4,700.0 | 4.00 | 110.00 | 4,691.3 | -85.9 | 236.0 | 109.2 | 0.00 | 0.00 | |
| 4,800.0 | 4.00 | 110.00 | 4,791.1 | -88.3 | 242.5 | 112.3 | 0.00 | 0.00 | Start 2° Drop |
| 4,900.0 | 2.00 | 110.00 | 4,890.9 | -90.1 | 247.5 | 114.5 | 2.00 | -2.00 | |
| 5,000.0 | 0.00 | 0.00 | 4,990.9 | -90.7 | 249.1 | 115.3 | 2.00 | -2.00 | EOD; Vertical |
| 5,100.0 | 0.00 | 0.00 | 5,090.9 | -90.7 | 249.1 | 115.3 | 0.00 | 0.00 | |

| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Company: | Whiting Petroleum Corporation | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site: | S26-T10N-R58W | North Reference: | Grid |
| Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | HZ | | |
| Design: | Plan #2 | | |

Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100u) | Comments / Formations |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|---------------------|-----------------------------------|
| 5,163.2 | 0.00 | 0.00 | 5,154.1 | -90.7 | 249.1 | 115.3 | 0.00 | 0.00 | Curve KOP @ 5163' MD |
| 5,200.0 | 4.05 | 152.50 | 5,190.9 | -91.8 | 249.7 | 116.5 | 11.00 | 11.00 | |
| 5,300.0 | 15.05 | 152.50 | 5,289.3 | -106.5 | 257.3 | 131.9 | 11.00 | 11.00 | |
| 5,400.0 | 26.05 | 152.50 | 5,382.8 | -137.6 | 273.5 | 164.4 | 11.00 | 11.00 | |
| 5,500.0 | 37.05 | 152.50 | 5,467.9 | -183.9 | 297.6 | 213.0 | 11.00 | 11.00 | |
| 5,597.8 | 47.80 | 152.50 | 5,540.0 | -242.4 | 328.1 | 274.2 | 11.00 | 11.00 | Top Niobrara |
| 5,600.0 | 48.05 | 152.50 | 5,541.5 | -243.8 | 328.8 | 275.7 | 11.00 | 11.00 | |
| 5,700.0 | 59.05 | 152.50 | 5,600.8 | -315.0 | 365.9 | 350.3 | 11.00 | 11.00 | |
| 5,800.0 | 70.05 | 152.50 | 5,643.7 | -395.0 | 407.5 | 434.1 | 11.00 | 11.00 | |
| 5,900.0 | 81.05 | 152.50 | 5,668.6 | -480.8 | 452.2 | 523.9 | 11.00 | 11.00 | |
| 5,981.4 | 90.00 | 152.50 | 5,675.0 | -552.7 | 489.6 | 599.2 | 11.00 | 11.00 | LP @ 5981' MD; Start 3° Turn - 7" |
| 6,000.0 | 90.00 | 153.06 | 5,675.0 | -569.2 | 498.1 | 616.5 | 3.00 | 0.00 | |
| 6,100.0 | 90.00 | 156.06 | 5,675.0 | -659.5 | 541.1 | 710.7 | 3.00 | 0.00 | |
| 6,200.0 | 90.00 | 159.06 | 5,675.0 | -751.9 | 579.2 | 806.5 | 3.00 | 0.00 | |
| 6,300.0 | 90.00 | 162.06 | 5,675.0 | -846.2 | 612.5 | 903.6 | 3.00 | 0.00 | |
| 6,400.0 | 90.00 | 165.06 | 5,675.0 | -942.1 | 640.8 | 1,001.9 | 3.00 | 0.00 | |
| 6,500.0 | 90.00 | 168.06 | 5,675.0 | -1,039.4 | 664.1 | 1,101.0 | 3.00 | 0.00 | |
| 6,600.0 | 90.00 | 171.06 | 5,675.0 | -1,137.7 | 682.2 | 1,200.6 | 3.00 | 0.00 | |
| 6,700.0 | 90.00 | 174.06 | 5,675.0 | -1,236.8 | 695.1 | 1,300.6 | 3.00 | 0.00 | |
| 6,800.0 | 90.00 | 177.06 | 5,675.0 | -1,336.5 | 702.9 | 1,400.5 | 3.00 | 0.00 | |
| 6,898.1 | 90.00 | 180.00 | 5,675.0 | -1,434.6 | 705.4 | 1,498.4 | 3.00 | 0.00 | EOT; 180° Az |
| 6,900.0 | 90.00 | 180.00 | 5,675.0 | -1,436.5 | 705.4 | 1,500.2 | 0.04 | 0.00 | |
| 7,000.0 | 90.00 | 180.00 | 5,675.0 | -1,536.5 | 705.4 | 1,599.7 | 0.00 | 0.00 | |
| 7,100.0 | 90.00 | 180.00 | 5,675.0 | -1,636.5 | 705.4 | 1,699.2 | 0.00 | 0.00 | |
| 7,200.0 | 90.00 | 180.00 | 5,675.0 | -1,736.5 | 705.4 | 1,798.7 | 0.00 | 0.00 | |
| 7,300.0 | 90.00 | 180.00 | 5,675.0 | -1,836.5 | 705.4 | 1,898.2 | 0.00 | 0.00 | |
| 7,400.0 | 90.00 | 180.00 | 5,675.0 | -1,936.5 | 705.4 | 1,997.7 | 0.00 | 0.00 | |
| 7,500.0 | 90.00 | 180.00 | 5,675.0 | -2,036.5 | 705.4 | 2,097.2 | 0.00 | 0.00 | |
| 7,600.0 | 90.00 | 180.00 | 5,675.0 | -2,136.5 | 705.4 | 2,196.7 | 0.00 | 0.00 | |
| 7,700.0 | 90.00 | 180.00 | 5,675.0 | -2,236.5 | 705.4 | 2,296.2 | 0.00 | 0.00 | |
| 7,800.0 | 90.00 | 180.00 | 5,675.0 | -2,336.5 | 705.4 | 2,395.7 | 0.00 | 0.00 | |
| 7,900.0 | 90.00 | 180.00 | 5,675.0 | -2,436.5 | 705.4 | 2,495.1 | 0.00 | 0.00 | |
| 8,000.0 | 90.00 | 180.00 | 5,675.0 | -2,536.5 | 705.4 | 2,594.6 | 0.00 | 0.00 | |
| 8,100.0 | 90.00 | 180.00 | 5,675.0 | -2,636.5 | 705.3 | 2,694.1 | 0.00 | 0.00 | |
| 8,200.0 | 90.00 | 180.00 | 5,675.0 | -2,736.5 | 705.3 | 2,793.6 | 0.00 | 0.00 | |
| 8,300.0 | 90.00 | 180.00 | 5,675.0 | -2,836.5 | 705.3 | 2,893.1 | 0.00 | 0.00 | |
| 8,400.0 | 90.00 | 180.00 | 5,675.0 | -2,936.5 | 705.3 | 2,992.6 | 0.00 | 0.00 | |
| 8,500.0 | 90.00 | 180.00 | 5,675.0 | -3,036.5 | 705.3 | 3,092.1 | 0.00 | 0.00 | |
| 8,600.0 | 90.00 | 180.00 | 5,675.0 | -3,136.5 | 705.3 | 3,191.6 | 0.00 | 0.00 | |
| 8,700.0 | 90.00 | 180.00 | 5,675.0 | -3,236.5 | 705.3 | 3,291.1 | 0.00 | 0.00 | |
| 8,800.0 | 90.00 | 180.00 | 5,675.0 | -3,336.5 | 705.3 | 3,390.6 | 0.00 | 0.00 | |
| 8,900.0 | 90.00 | 180.00 | 5,675.0 | -3,436.5 | 705.3 | 3,490.1 | 0.00 | 0.00 | |
| 9,000.0 | 90.00 | 180.00 | 5,675.0 | -3,536.5 | 705.3 | 3,589.5 | 0.00 | 0.00 | |
| 9,100.0 | 90.00 | 180.00 | 5,675.0 | -3,636.5 | 705.3 | 3,689.0 | 0.00 | 0.00 | |
| 9,200.0 | 90.00 | 180.00 | 5,675.0 | -3,736.5 | 705.3 | 3,788.5 | 0.00 | 0.00 | |
| 9,300.0 | 90.00 | 180.00 | 5,675.0 | -3,836.5 | 705.3 | 3,888.0 | 0.00 | 0.00 | |
| 9,400.0 | 90.00 | 180.00 | 5,675.0 | -3,936.5 | 705.3 | 3,987.5 | 0.00 | 0.00 | |
| 9,500.0 | 90.00 | 180.00 | 5,675.0 | -4,036.5 | 705.3 | 4,087.0 | 0.00 | 0.00 | |
| 9,600.0 | 90.00 | 180.00 | 5,675.0 | -4,136.5 | 705.3 | 4,186.5 | 0.00 | 0.00 | |
| 9,700.0 | 90.00 | 180.00 | 5,675.0 | -4,236.5 | 705.3 | 4,286.0 | 0.00 | 0.00 | |
| 9,800.0 | 90.00 | 180.00 | 5,675.0 | -4,336.5 | 705.3 | 4,385.5 | 0.00 | 0.00 | |
| 9,900.0 | 90.00 | 180.00 | 5,675.0 | -4,436.5 | 705.3 | 4,485.0 | 0.00 | 0.00 | |

| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Company: | Whiting Petroleum Corporation | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site: | S26-T10N-R58W | North Reference: | Grid |
| Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | HZ | | |
| Design: | Plan #2 | | |

| Planned Survey | | | | | | | | | |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|---------------------|-----------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100u) | Comments / Formations |
| 10,000.0 | 90.00 | 180.00 | 5,675.0 | -4,536.5 | 705.3 | 4,584.5 | 0.00 | 0.00 | |
| 10,100.0 | 90.00 | 180.00 | 5,675.0 | -4,636.5 | 705.3 | 4,683.9 | 0.00 | 0.00 | |
| 10,200.0 | 90.00 | 180.00 | 5,675.0 | -4,736.5 | 705.3 | 4,783.4 | 0.00 | 0.00 | |
| 10,300.0 | 90.00 | 180.00 | 5,675.0 | -4,836.5 | 705.3 | 4,882.9 | 0.00 | 0.00 | |
| 10,400.0 | 90.00 | 180.00 | 5,675.0 | -4,936.5 | 705.3 | 4,982.4 | 0.00 | 0.00 | |
| 10,500.0 | 90.00 | 180.00 | 5,675.0 | -5,036.5 | 705.2 | 5,081.9 | 0.00 | 0.00 | |
| 10,600.0 | 90.00 | 180.00 | 5,675.0 | -5,136.5 | 705.2 | 5,181.4 | 0.00 | 0.00 | |
| 10,700.0 | 90.00 | 180.00 | 5,675.0 | -5,236.5 | 705.2 | 5,280.9 | 0.00 | 0.00 | |
| 10,800.0 | 90.00 | 180.00 | 5,675.0 | -5,336.5 | 705.2 | 5,380.4 | 0.00 | 0.00 | |
| 10,900.0 | 90.00 | 180.00 | 5,675.0 | -5,436.5 | 705.2 | 5,479.9 | 0.00 | 0.00 | |
| 11,000.0 | 90.00 | 180.00 | 5,675.0 | -5,536.5 | 705.2 | 5,579.4 | 0.00 | 0.00 | |
| 11,100.0 | 90.00 | 180.00 | 5,675.0 | -5,636.5 | 705.2 | 5,678.9 | 0.00 | 0.00 | |
| 11,200.0 | 90.00 | 180.00 | 5,675.0 | -5,736.5 | 705.2 | 5,778.3 | 0.00 | 0.00 | |
| 11,300.0 | 90.00 | 180.00 | 5,675.0 | -5,836.5 | 705.2 | 5,877.8 | 0.00 | 0.00 | |
| 11,400.0 | 90.00 | 180.00 | 5,675.0 | -5,936.5 | 705.2 | 5,977.3 | 0.00 | 0.00 | |
| 11,500.0 | 90.00 | 180.00 | 5,675.0 | -6,036.5 | 705.2 | 6,076.8 | 0.00 | 0.00 | |
| 11,600.0 | 90.00 | 180.00 | 5,675.0 | -6,136.5 | 705.2 | 6,176.3 | 0.00 | 0.00 | |
| 11,700.0 | 90.00 | 180.00 | 5,675.0 | -6,236.5 | 705.2 | 6,275.8 | 0.00 | 0.00 | |
| 11,800.0 | 90.00 | 180.00 | 5,675.0 | -6,336.5 | 705.2 | 6,375.3 | 0.00 | 0.00 | |
| 11,900.0 | 90.00 | 180.00 | 5,675.0 | -6,436.5 | 705.2 | 6,474.8 | 0.00 | 0.00 | |
| 12,000.0 | 90.00 | 180.00 | 5,675.0 | -6,536.5 | 705.2 | 6,574.3 | 0.00 | 0.00 | |
| 12,100.0 | 90.00 | 180.00 | 5,675.0 | -6,636.5 | 705.2 | 6,673.8 | 0.00 | 0.00 | |
| 12,200.0 | 90.00 | 180.00 | 5,675.0 | -6,736.5 | 705.2 | 6,773.3 | 0.00 | 0.00 | |
| 12,300.0 | 90.00 | 180.00 | 5,675.0 | -6,836.5 | 705.2 | 6,872.7 | 0.00 | 0.00 | |
| 12,400.0 | 90.00 | 180.00 | 5,675.0 | -6,936.5 | 705.2 | 6,972.2 | 0.00 | 0.00 | |
| 12,429.3 | 90.00 | 180.00 | 5,675.0 | -6,965.8 | 705.2 | 7,001.4 | 0.00 | 0.00 | PBHL @ 12429' MD |

| Targets | | | | | | | | | |
|--|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|-------------------|
| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude |
| 26L-3504B BH TGT - hit/miss target - Shape - plan hits target center - Point | 0.00 | 0.00 | 5,675.0 | -6,965.8 | 705.2 | 1,534,735.30 | 3,460,448.49 | 40° 47' 21.772 N | 103° 50' 13.549 W |
| 26L-3504B PBHL - plan misses target center by 499.2usft at 12429.3usft MD (5675.0 TVD, -6965.8 N, 705.2 E) - Point | 0.00 | 0.00 | 5,675.0 | -7,464.7 | 722.3 | 1,534,236.39 | 3,460,465.60 | 40° 47' 16.840 N | 103° 50' 13.448 W |

| Casing Points | | | | |
|-----------------------|-----------------------|------|---------------------|-------------------|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Casing Diameter (") | Hole Diameter (") |
| 5,981.4 | 5,675.0 | 7" | 0 | 0 |

| | | | |
|------------------|-------------------------------|-------------------------------------|--|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Company: | Whiting Petroleum Corporation | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Project: | Weld County, CO | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site: | S26-T10N-R58W | North Reference: | Grid |
| Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | HZ | | |
| Design: | Plan #2 | | |

| Formations | | | | | | |
|-----------------------|-----------------------|--------------|-----------|---------|-------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Name | Lithology | Dip (°) | Dip Direction (°) | |
| 5,597.8 | 5,540.0 | Top Niobrara | | 0.00 | | |

| Plan Annotations | | | | | |
|-----------------------|-----------------------|-------------------|--------------|------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | | |
| | | +N/-S (usft) | +E/-W (usft) | Comment | |
| 1,000.0 | 1,000.0 | 0.0 | 0.0 | KOP @ 1000' MD | |
| 1,200.0 | 1,199.8 | -2.4 | 6.6 | EOB; 4° | |
| 4,800.0 | 4,791.1 | -88.3 | 242.5 | Start 2° Drop | |
| 5,000.0 | 4,990.9 | -90.7 | 249.1 | EOD; Vertical | |
| 5,163.2 | 5,154.1 | -90.7 | 249.1 | Curve KOP @ 5163' MD | |
| 5,981.4 | 5,675.0 | -552.7 | 489.6 | LP @ 5981' MD; Start 3° Turn | |
| 6,898.1 | 5,675.0 | -1,434.6 | 705.4 | EOT; 180° Az | |
| 12,429.3 | 5,675.0 | -6,965.8 | 705.2 | PBHL @ 12429' MD | |



WHITING PETROLEUM CORPORATION

Whiting Petroleum Corporation

Weld County, CO

S26-T10N-R58W

Razor #26L-3504B

HZ

Plan #2

Anticollision Report

18 June, 2013

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| | | | |
|-------------------------------------|---|-----------------------|---------------------|
| Reference | Plan #2 | | |
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| Interpolation Method: | Stations | Error Model: | Systematic Ellipse |
| Depth Range: | Unlimited | Scan Method: | Closest Approach 3D |
| Results Limited by: | Maximum center-center distance of 1,000.0usft | Error Surface: | Elliptical Conic |
| Warning Levels Evaluated at: | 2.00 Sigma | | |

| | | | | |
|----------------------------|------------------|--------------------------|------------------|--------------------|
| Survey Tool Program | Date | 6/18/2013 | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 0.0 | 12,429.3 | Plan #2 (HZ) | ISCWSA MWD | MWD - ISCWSA |

| Summary | | | | | | |
|--|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|-----------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| S26-T10N-R58W | | | | | | |
| Razor #26K-2305A - HZ - Plan #1 | | | | | | Out of range |
| Razor #26K-2306B - HZ - Plan #1 | | | | | | Out of range |
| Razor #26K-2308B - HZ - Plan #1 | | | | | | Out of range |
| Razor #26K-3505A - HZ - Plan #1 | 6,898.0 | 6,796.2 | 353.0 | 290.5 | 5.642 | CC |
| Razor #26K-3505A - HZ - Plan #1 | 12,429.3 | 12,327.4 | 353.4 | 87.6 | 1.330 | Level 3, ES, SF |
| Razor #26K-3507A - HZ - Plan #1 | | | | | | Out of range |
| Razor #26K-3508B - HZ - Plan #1 | | | | | | Out of range |
| Razor #26L-2301A - HZ - Plan #2 | 466.7 | 466.7 | 100.1 | 98.2 | 54.509 | CC |
| Razor #26L-2301A - HZ - Plan #2 | 500.0 | 500.0 | 100.1 | 98.1 | 50.396 | ES |
| Razor #26L-2301A - HZ - Plan #2 | 5,163.2 | 5,113.4 | 640.0 | 616.2 | 26.886 | SF |
| Razor #26L-2302B - HZ - Plan #2 | 1,000.0 | 1,000.0 | 99.4 | 95.1 | 23.475 | CC, ES |
| Razor #26L-2302B - HZ - Plan #2 | 1,200.0 | 1,197.5 | 108.0 | 102.9 | 21.301 | SF |
| Razor #26L-2303A - HZ - Plan #2 | 966.7 | 966.7 | 75.1 | 71.0 | 18.381 | CC |
| Razor #26L-2303A - HZ - Plan #2 | 1,000.0 | 1,000.0 | 75.1 | 70.8 | 17.731 | ES |
| Razor #26L-2303A - HZ - Plan #2 | 1,100.0 | 1,097.4 | 77.4 | 72.7 | 16.610 | SF |
| Razor #26L-2304B - HZ - Plan #1 | 945.1 | 945.6 | 28.5 | 24.5 | 7.120 | CC, ES |
| Razor #26L-2304B - HZ - Plan #1 | 1,000.0 | 1,000.4 | 28.7 | 24.5 | 6.767 | SF |
| Razor #26L-3501A - HZ - Plan #2 | 945.4 | 945.5 | 124.5 | 120.6 | 31.551 | CC |
| Razor #26L-3501A - HZ - Plan #2 | 1,000.0 | 999.9 | 124.5 | 120.4 | 29.865 | ES |
| Razor #26L-3501A - HZ - Plan #2 | 12,429.3 | 12,187.9 | 993.6 | 725.3 | 3.702 | SF |
| Razor #26L-3502B - HZ - Plan #2 | 1,000.0 | 1,000.0 | 66.2 | 61.9 | 15.629 | CC, ES |
| Razor #26L-3502B - HZ - Plan #2 | 12,429.3 | 12,191.9 | 660.0 | 391.7 | 2.460 | SF |
| Razor #26L-3503A - HZ - Plan #2 | 2,794.7 | 2,798.2 | 32.7 | 20.7 | 2.716 | CC |
| Razor #26L-3503A - HZ - Plan #2 | 3,100.0 | 3,103.4 | 33.5 | 20.0 | 2.478 | ES |
| Razor #26L-3503A - HZ - Plan #2 | 12,429.3 | 12,256.6 | 341.5 | 81.9 | 1.315 | Level 3, SF |
| Razor 26-3524H (Existing) - Existing - SURVEYs | 6,791.9 | 6,782.9 | 625.1 | 568.1 | 10.971 | CC |
| Razor 26-3524H (Existing) - Existing - SURVEYs | 12,317.3 | 12,353.2 | 694.6 | 439.1 | 2.718 | ES |
| Razor 26-3524H (Existing) - Existing - SURVEYs | 12,400.0 | 12,355.0 | 698.6 | 441.4 | 2.717 | SF |
| Razor Federal #26J-3509A - HZ - Plan #1 | | | | | | Out of range |
| S27-T10N-R58W | | | | | | |
| Razor #27I-3415A - HZ - Plan #1 | | | | | | Out of range |
| Razor #27I-3416B - HZ - Plan #1 | | | | | | Out of range |
| Razor #27I-3416B - HZ - Plan #2 | | | | | | Out of range |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26K-3505A - HZ - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------------|-------------------------------|------------------------------|----------------------|---------|----------|--------------------|----------|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | Between Centres (usft) | Between Ellipses (usft) | | | | | | |
| 4,300.0 | 4,292.3 | 4,322.6 | 4,314.8 | 10.2 | 10.1 | -24.87 | 6.9 | 1,204.7 | 998.6 | 978.9 | 19.75 | 50.552 | | |
| 4,400.0 | 4,392.0 | 4,422.2 | 4,414.2 | 10.5 | 10.4 | -24.65 | 0.1 | 1,203.3 | 990.3 | 970.1 | 20.25 | 48.898 | | |
| 4,500.0 | 4,491.8 | 4,521.8 | 4,513.5 | 10.7 | 10.7 | -24.43 | -6.8 | 1,201.9 | 982.1 | 961.3 | 20.75 | 47.323 | | |
| 4,600.0 | 4,591.6 | 4,621.4 | 4,612.9 | 11.0 | 10.9 | -24.20 | -13.6 | 1,200.6 | 973.8 | 952.6 | 21.25 | 45.822 | | |
| 4,700.0 | 4,691.3 | 4,720.9 | 4,712.2 | 11.2 | 11.2 | -23.97 | -20.4 | 1,199.2 | 965.6 | 943.8 | 21.75 | 44.390 | | |
| 4,800.0 | 4,791.1 | 4,820.5 | 4,811.5 | 11.5 | 11.4 | -23.74 | -27.2 | 1,197.8 | 957.4 | 935.1 | 22.25 | 43.023 | | |
| 4,900.0 | 4,890.9 | 4,920.2 | 4,911.0 | 11.7 | 11.7 | -23.41 | -34.0 | 1,196.4 | 950.8 | 928.0 | 22.74 | 41.807 | | |
| 5,000.0 | 4,990.9 | 5,020.0 | 5,010.5 | 11.9 | 12.0 | -23.18 | -40.8 | 1,195.0 | 947.4 | 924.6 | 22.79 | 41.572 | | |
| 5,100.0 | 5,090.9 | 5,119.7 | 5,110.0 | 12.1 | 12.2 | -22.95 | -47.6 | 1,193.6 | 945.7 | 922.4 | 23.24 | 40.684 | | |
| 5,163.2 | 5,154.1 | 5,218.6 | 5,207.8 | 12.2 | 12.6 | -22.72 | -60.9 | 1,191.0 | 943.7 | 920.0 | 23.68 | 39.854 | | |
| 5,200.0 | 5,190.9 | 5,279.7 | 5,266.3 | 12.3 | 12.8 | -22.49 | -77.9 | 1,187.5 | 940.7 | 916.3 | 24.43 | 38.500 | | |
| 5,250.0 | 5,240.5 | 5,357.5 | 5,337.3 | 12.4 | 13.3 | -22.26 | -109.1 | 1,181.2 | 933.5 | 908.6 | 24.96 | 37.401 | | |
| 5,300.0 | 5,289.3 | 5,428.8 | 5,397.5 | 12.6 | 13.8 | -22.03 | -146.5 | 1,173.6 | 923.1 | 897.6 | 25.51 | 36.182 | | |
| 5,350.0 | 5,336.9 | 5,493.8 | 5,447.3 | 12.8 | 14.3 | -21.80 | -187.3 | 1,165.3 | 909.7 | 883.7 | 26.05 | 34.918 | | |
| 5,400.0 | 5,382.8 | 5,552.9 | 5,487.8 | 13.0 | 14.9 | -21.57 | -229.5 | 1,156.7 | 893.8 | 867.2 | 26.58 | 33.628 | | |
| 5,450.0 | 5,426.6 | 5,606.9 | 5,520.4 | 13.3 | 15.5 | -21.34 | -271.6 | 1,148.2 | 875.5 | 848.5 | 27.09 | 32.321 | | |
| 5,500.0 | 5,467.9 | 5,656.4 | 5,546.1 | 13.6 | 16.0 | -21.11 | -313.0 | 1,139.8 | 855.2 | 827.7 | 27.59 | 30.998 | | |
| 5,550.0 | 5,506.3 | 5,702.1 | 5,566.3 | 13.9 | 16.6 | -20.88 | -353.2 | 1,131.6 | 833.1 | 805.0 | 28.11 | 29.642 | | |
| 5,600.0 | 5,541.5 | 5,744.8 | 5,581.8 | 14.4 | 17.2 | -20.65 | -392.2 | 1,123.7 | 809.4 | 780.8 | 28.67 | 28.238 | | |
| 5,650.0 | 5,573.1 | 5,784.9 | 5,593.3 | 14.8 | 17.7 | -20.42 | -429.8 | 1,116.0 | 784.3 | 755.0 | 29.31 | 26.760 | | |
| 5,700.0 | 5,600.8 | 5,823.1 | 5,601.5 | 15.3 | 18.3 | -20.19 | -466.3 | 1,108.6 | 758.0 | 727.8 | 30.11 | 25.169 | | |
| 5,750.0 | 5,624.4 | 5,859.6 | 5,606.8 | 15.9 | 18.8 | -19.96 | -501.7 | 1,101.4 | 730.5 | 699.5 | 31.04 | 23.539 | | |
| 5,800.0 | 5,643.7 | 5,894.8 | 5,609.5 | 16.5 | 19.3 | -19.73 | -536.1 | 1,094.4 | 702.2 | 670.2 | 32.07 | 21.894 | | |
| 5,850.0 | 5,658.5 | 5,917.0 | 5,610.0 | 17.2 | 19.6 | -19.50 | -557.9 | 1,090.0 | 673.3 | 640.2 | 33.15 | 20.309 | | |
| 5,900.0 | 5,668.6 | 5,955.5 | 5,610.0 | 17.9 | 20.2 | -19.27 | -595.7 | 1,082.7 | 643.9 | 609.5 | 34.42 | 18.709 | | |
| 5,950.0 | 5,674.0 | 5,985.2 | 5,610.0 | 18.7 | 20.6 | -19.04 | -625.0 | 1,077.6 | 614.4 | 578.7 | 35.71 | 17.205 | | |
| 5,981.4 | 5,675.0 | 6,000.0 | 5,610.0 | 19.1 | 20.8 | -18.81 | -639.6 | 1,075.3 | 596.0 | 559.4 | 36.51 | 16.322 | | |
| 6,000.0 | 5,675.0 | 6,015.9 | 5,610.0 | 19.4 | 21.0 | -18.58 | -655.3 | 1,072.8 | 585.1 | 548.1 | 36.98 | 15.821 | | |
| 6,100.0 | 5,675.0 | 6,080.9 | 5,610.0 | 20.8 | 21.9 | -18.18 | -719.7 | 1,064.3 | 531.1 | 491.8 | 39.28 | 13.519 | | |
| 6,200.0 | 5,675.0 | 6,150.8 | 5,610.0 | 22.2 | 22.9 | -17.78 | -789.3 | 1,057.6 | 484.6 | 442.8 | 41.77 | 11.601 | | |
| 6,300.0 | 5,675.0 | 6,225.1 | 5,610.0 | 23.8 | 24.0 | -17.38 | -863.5 | 1,053.3 | 446.3 | 401.9 | 44.40 | 10.051 | | |
| 6,400.0 | 5,675.0 | 6,303.8 | 5,610.0 | 25.3 | 25.1 | -16.98 | -942.1 | 1,051.8 | 416.6 | 369.4 | 47.15 | 8.835 | | |
| 6,500.0 | 5,675.0 | 6,401.0 | 5,610.0 | 26.8 | 26.7 | -16.58 | -1,039.4 | 1,051.8 | 393.7 | 343.4 | 50.24 | 7.835 | | |
| 6,600.0 | 5,675.0 | 6,499.4 | 5,610.0 | 28.4 | 28.3 | -16.18 | -1,137.7 | 1,051.8 | 375.8 | 322.4 | 53.40 | 7.037 | | |
| 6,700.0 | 5,675.0 | 6,598.5 | 5,610.0 | 29.9 | 30.0 | -15.78 | -1,236.9 | 1,051.8 | 363.1 | 306.6 | 56.54 | 6.422 | | |
| 6,800.0 | 5,675.0 | 6,698.2 | 5,610.0 | 31.4 | 31.7 | -15.38 | -1,336.5 | 1,051.8 | 355.5 | 295.9 | 59.63 | 5.962 | | |
| 6,898.0 | 5,675.0 | 6,796.2 | 5,610.0 | 32.9 | 33.5 | -14.98 | -1,434.5 | 1,051.8 | 353.0 | 290.5 | 62.57 | 5.642 CC | | |
| 6,898.1 | 5,675.0 | 6,796.3 | 5,610.0 | 32.9 | 33.5 | -14.98 | -1,434.6 | 1,051.8 | 353.0 | 290.5 | 62.57 | 5.642 | | |
| 6,900.0 | 5,675.0 | 6,798.2 | 5,610.0 | 32.9 | 33.5 | -14.98 | -1,436.5 | 1,051.8 | 353.0 | 290.4 | 62.64 | 5.636 | | |
| 7,000.0 | 5,675.0 | 6,898.2 | 5,610.0 | 34.5 | 35.3 | -14.58 | -1,536.5 | 1,051.8 | 353.0 | 287.0 | 66.01 | 5.349 | | |
| 7,100.0 | 5,675.0 | 6,998.2 | 5,610.0 | 36.0 | 37.1 | -14.18 | -1,636.5 | 1,051.8 | 353.0 | 283.6 | 69.42 | 5.086 | | |
| 7,200.0 | 5,675.0 | 7,098.2 | 5,610.0 | 37.6 | 38.8 | -13.78 | -1,736.5 | 1,051.8 | 353.1 | 280.2 | 72.87 | 4.845 | | |
| 7,300.0 | 5,675.0 | 7,198.2 | 5,610.0 | 39.2 | 40.7 | -13.38 | -1,836.5 | 1,051.8 | 353.1 | 276.7 | 76.34 | 4.625 | | |
| 7,400.0 | 5,675.0 | 7,298.2 | 5,610.0 | 40.9 | 42.5 | -12.98 | -1,936.5 | 1,051.8 | 353.1 | 273.2 | 79.85 | 4.422 | | |
| 7,500.0 | 5,675.0 | 7,398.2 | 5,610.0 | 42.6 | 44.3 | -12.58 | -2,036.5 | 1,051.8 | 353.1 | 269.7 | 83.38 | 4.235 | | |
| 7,600.0 | 5,675.0 | 7,498.2 | 5,610.0 | 44.2 | 46.1 | -12.18 | -2,136.5 | 1,051.8 | 353.1 | 266.2 | 86.93 | 4.062 | | |
| 7,700.0 | 5,675.0 | 7,598.2 | 5,610.0 | 45.9 | 48.0 | -11.78 | -2,236.5 | 1,051.8 | 353.1 | 262.6 | 90.50 | 3.902 | | |
| 7,800.0 | 5,675.0 | 7,698.2 | 5,610.0 | 47.7 | 49.8 | -11.38 | -2,336.5 | 1,051.8 | 353.1 | 259.0 | 94.08 | 3.753 | | |
| 7,900.0 | 5,675.0 | 7,798.2 | 5,610.0 | 49.4 | 51.7 | -10.98 | -2,436.5 | 1,051.9 | 353.1 | 255.4 | 97.68 | 3.615 | | |
| 8,000.0 | 5,675.0 | 7,898.2 | 5,610.0 | 51.1 | 53.5 | -10.58 | -2,536.5 | 1,051.9 | 353.1 | 251.8 | 101.29 | 3.486 | | |
| 8,100.0 | 5,675.0 | 7,998.2 | 5,610.0 | 52.9 | 55.4 | -10.18 | -2,636.5 | 1,051.9 | 353.1 | 248.2 | 104.92 | 3.366 | | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26K-3505A - HZ - Plan #1 | | | | | | | | | | | | | Offset Site Error: 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|---|-----------------|------------------------------|----------------------|---------|-----------------------|-----------------------------|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | | | Offset Well Error: 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | | | | | |
| 8,200.0 | 5,675.0 | 8,098.2 | 5,610.0 | 54.7 | 57.2 | -78.90 | -2,736.5 | 1,051.9 | 353.1 | 244.6 | 108.55 | 3.253 | |
| 8,300.0 | 5,675.0 | 8,198.2 | 5,610.0 | 56.5 | 59.1 | -78.90 | -2,836.5 | 1,051.9 | 353.1 | 240.9 | 112.19 | 3.148 | |
| 8,400.0 | 5,675.0 | 8,298.2 | 5,610.0 | 58.2 | 61.0 | -78.90 | -2,936.5 | 1,051.9 | 353.1 | 237.3 | 115.84 | 3.048 | |
| 8,500.0 | 5,675.0 | 8,398.2 | 5,610.0 | 60.0 | 62.8 | -78.90 | -3,036.5 | 1,051.9 | 353.1 | 233.6 | 119.50 | 2.955 | |
| 8,600.0 | 5,675.0 | 8,498.2 | 5,610.0 | 61.8 | 64.7 | -78.90 | -3,136.5 | 1,051.9 | 353.2 | 230.0 | 123.17 | 2.867 | |
| 8,700.0 | 5,675.0 | 8,598.2 | 5,610.0 | 63.6 | 66.6 | -78.90 | -3,236.5 | 1,051.9 | 353.2 | 226.3 | 126.84 | 2.784 | |
| 8,800.0 | 5,675.0 | 8,698.2 | 5,610.0 | 65.5 | 68.5 | -78.90 | -3,336.5 | 1,051.9 | 353.2 | 222.6 | 130.52 | 2.706 | |
| 8,900.0 | 5,675.0 | 8,798.2 | 5,610.0 | 67.3 | 70.4 | -78.90 | -3,436.5 | 1,051.9 | 353.2 | 219.0 | 134.20 | 2.632 | |
| 9,000.0 | 5,675.0 | 8,898.2 | 5,610.0 | 69.1 | 72.2 | -78.90 | -3,536.5 | 1,051.9 | 353.2 | 215.3 | 137.89 | 2.561 | |
| 9,100.0 | 5,675.0 | 8,998.2 | 5,610.0 | 70.9 | 74.1 | -78.90 | -3,636.5 | 1,051.9 | 353.2 | 211.6 | 141.58 | 2.495 | |
| 9,200.0 | 5,675.0 | 9,098.2 | 5,610.0 | 72.8 | 76.0 | -78.90 | -3,736.5 | 1,051.9 | 353.2 | 207.9 | 145.28 | 2.431 | |
| 9,300.0 | 5,675.0 | 9,198.2 | 5,610.0 | 74.6 | 77.9 | -78.90 | -3,836.5 | 1,051.9 | 353.2 | 204.2 | 148.98 | 2.371 | |
| 9,400.0 | 5,675.0 | 9,298.2 | 5,610.0 | 76.5 | 79.8 | -78.90 | -3,936.5 | 1,051.9 | 353.2 | 200.5 | 152.68 | 2.313 | |
| 9,500.0 | 5,675.0 | 9,398.2 | 5,610.0 | 78.3 | 81.7 | -78.90 | -4,036.5 | 1,051.9 | 353.2 | 196.8 | 156.39 | 2.259 | |
| 9,600.0 | 5,675.0 | 9,498.2 | 5,610.0 | 80.2 | 83.6 | -78.90 | -4,136.5 | 1,051.9 | 353.2 | 193.1 | 160.10 | 2.206 | |
| 9,700.0 | 5,675.0 | 9,598.2 | 5,610.0 | 82.0 | 85.5 | -78.90 | -4,236.5 | 1,051.9 | 353.2 | 189.4 | 163.82 | 2.156 | |
| 9,800.0 | 5,675.0 | 9,698.2 | 5,610.0 | 83.9 | 87.4 | -78.90 | -4,336.5 | 1,051.9 | 353.2 | 185.7 | 167.53 | 2.108 | |
| 9,900.0 | 5,675.0 | 9,798.2 | 5,610.0 | 85.7 | 89.3 | -78.90 | -4,436.5 | 1,051.9 | 353.2 | 182.0 | 171.25 | 2.063 | |
| 10,000.0 | 5,675.0 | 9,898.2 | 5,610.0 | 87.6 | 91.2 | -78.90 | -4,536.5 | 1,051.9 | 353.3 | 178.3 | 174.97 | 2.019 | |
| 10,100.0 | 5,675.0 | 9,998.2 | 5,610.0 | 89.4 | 93.0 | -78.90 | -4,636.5 | 1,051.9 | 353.3 | 174.6 | 178.69 | 1.977 | |
| 10,200.0 | 5,675.0 | 10,098.2 | 5,610.0 | 91.3 | 94.9 | -78.90 | -4,736.5 | 1,051.9 | 353.3 | 170.8 | 182.42 | 1.937 | |
| 10,300.0 | 5,675.0 | 10,198.2 | 5,610.0 | 93.2 | 96.8 | -78.90 | -4,836.5 | 1,051.9 | 353.3 | 167.1 | 186.15 | 1.898 | |
| 10,400.0 | 5,675.0 | 10,298.2 | 5,610.0 | 95.1 | 98.7 | -78.90 | -4,936.5 | 1,051.9 | 353.3 | 163.4 | 189.88 | 1.861 | |
| 10,500.0 | 5,675.0 | 10,398.2 | 5,610.0 | 96.9 | 100.6 | -78.90 | -5,036.5 | 1,051.9 | 353.3 | 159.7 | 193.61 | 1.825 | |
| 10,600.0 | 5,675.0 | 10,498.2 | 5,610.0 | 98.8 | 102.5 | -78.90 | -5,136.5 | 1,051.9 | 353.3 | 156.0 | 197.34 | 1.790 | |
| 10,700.0 | 5,675.0 | 10,598.2 | 5,610.0 | 100.7 | 104.4 | -78.90 | -5,236.5 | 1,051.9 | 353.3 | 152.2 | 201.07 | 1.757 | |
| 10,800.0 | 5,675.0 | 10,698.2 | 5,610.0 | 102.5 | 106.3 | -78.90 | -5,336.5 | 1,051.9 | 353.3 | 148.5 | 204.81 | 1.725 | |
| 10,900.0 | 5,675.0 | 10,798.2 | 5,610.0 | 104.4 | 108.2 | -78.90 | -5,436.5 | 1,051.9 | 353.3 | 144.8 | 208.55 | 1.694 | |
| 11,000.0 | 5,675.0 | 10,898.2 | 5,610.0 | 106.3 | 110.2 | -78.90 | -5,536.5 | 1,052.0 | 353.3 | 141.0 | 212.28 | 1.664 | |
| 11,100.0 | 5,675.0 | 10,998.2 | 5,610.0 | 108.2 | 112.1 | -78.90 | -5,636.5 | 1,052.0 | 353.3 | 137.3 | 216.02 | 1.636 | |
| 11,200.0 | 5,675.0 | 11,098.2 | 5,610.0 | 110.1 | 114.0 | -78.90 | -5,736.5 | 1,052.0 | 353.3 | 133.6 | 219.76 | 1.608 | |
| 11,300.0 | 5,675.0 | 11,198.2 | 5,610.0 | 111.9 | 115.9 | -78.90 | -5,836.5 | 1,052.0 | 353.3 | 129.8 | 223.51 | 1.581 | |
| 11,400.0 | 5,675.0 | 11,298.2 | 5,610.0 | 113.8 | 117.8 | -78.91 | -5,936.5 | 1,052.0 | 353.4 | 126.1 | 227.25 | 1.555 | |
| 11,500.0 | 5,675.0 | 11,398.2 | 5,610.0 | 115.7 | 119.7 | -78.91 | -6,036.5 | 1,052.0 | 353.4 | 122.4 | 230.99 | 1.530 | |
| 11,600.0 | 5,675.0 | 11,498.2 | 5,610.0 | 117.6 | 121.6 | -78.91 | -6,136.5 | 1,052.0 | 353.4 | 118.6 | 234.74 | 1.505 | |
| 11,700.0 | 5,675.0 | 11,598.2 | 5,610.0 | 119.5 | 123.5 | -78.91 | -6,236.5 | 1,052.0 | 353.4 | 114.9 | 238.48 | 1.482 Level 3 | |
| 11,800.0 | 5,675.0 | 11,698.2 | 5,610.0 | 121.4 | 125.4 | -78.91 | -6,336.5 | 1,052.0 | 353.4 | 111.2 | 242.23 | 1.459 Level 3 | |
| 11,900.0 | 5,675.0 | 11,798.2 | 5,610.0 | 123.3 | 127.3 | -78.91 | -6,436.5 | 1,052.0 | 353.4 | 107.4 | 245.97 | 1.437 Level 3 | |
| 12,000.0 | 5,675.0 | 11,898.2 | 5,610.0 | 125.2 | 129.2 | -78.91 | -6,536.5 | 1,052.0 | 353.4 | 103.7 | 249.72 | 1.415 Level 3 | |
| 12,100.0 | 5,675.0 | 11,998.2 | 5,610.0 | 127.1 | 131.1 | -78.91 | -6,636.5 | 1,052.0 | 353.4 | 99.9 | 253.47 | 1.394 Level 3 | |
| 12,200.0 | 5,675.0 | 12,098.2 | 5,610.0 | 128.9 | 133.0 | -78.91 | -6,736.5 | 1,052.0 | 353.4 | 96.2 | 257.22 | 1.374 Level 3 | |
| 12,300.0 | 5,675.0 | 12,198.2 | 5,610.0 | 130.8 | 134.9 | -78.91 | -6,836.5 | 1,052.0 | 353.4 | 92.4 | 260.97 | 1.354 Level 3 | |
| 12,400.0 | 5,675.0 | 12,298.2 | 5,610.0 | 132.7 | 136.8 | -78.91 | -6,936.5 | 1,052.0 | 353.4 | 88.7 | 264.72 | 1.335 Level 3 | |
| 12,429.3 | 5,675.0 | 12,327.4 | 5,610.0 | 133.3 | 137.4 | -78.91 | -6,965.7 | 1,052.0 | 353.4 | 87.6 | 265.82 | 1.330 Level 3, ES, SF | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-2301A - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------------|-------------------------------|------------------------------|----------------------|---------|-----------|--------------------|----------|
| Survey Program: 0-ISCSWA MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | Between Centres (usft) | Between Ellipses (usft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -42.46 | 73.8 | -67.6 | 100.1 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -42.46 | 73.8 | -67.6 | 100.1 | 99.9 | 0.19 | 533.230 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -42.46 | 73.8 | -67.6 | 100.1 | 99.4 | 0.64 | 157.054 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -42.46 | 73.8 | -67.6 | 100.1 | 99.0 | 1.09 | 92.088 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -42.46 | 73.8 | -67.6 | 100.1 | 98.5 | 1.54 | 65.142 | | |
| 466.7 | 466.7 | 466.7 | 466.7 | 0.9 | 0.9 | -42.46 | 73.8 | -67.6 | 100.1 | 98.2 | 1.84 | 54.509 CC | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -42.46 | 73.8 | -67.6 | 100.1 | 98.1 | 1.99 | 50.396 ES | | |
| 600.0 | 600.0 | 596.7 | 596.7 | 1.2 | 1.2 | -42.20 | 75.3 | -68.3 | 101.7 | 99.3 | 2.43 | 41.896 | | |
| 700.0 | 700.0 | 693.2 | 693.1 | 1.4 | 1.4 | -41.46 | 79.7 | -70.4 | 106.6 | 103.7 | 2.87 | 37.100 | | |
| 800.0 | 800.0 | 792.7 | 792.3 | 1.7 | 1.7 | -40.53 | 85.9 | -73.5 | 113.3 | 110.0 | 3.33 | 34.032 | | |
| 900.0 | 900.0 | 892.5 | 891.9 | 1.9 | 1.9 | -39.69 | 92.2 | -76.5 | 120.1 | 116.3 | 3.79 | 31.676 | | |
| 1,000.0 | 1,000.0 | 992.2 | 991.4 | 2.1 | 2.1 | -38.95 | 98.4 | -79.6 | 126.9 | 122.6 | 4.25 | 29.814 | | |
| 1,100.0 | 1,100.0 | 1,091.9 | 1,090.8 | 2.3 | 2.4 | -148.58 | 104.7 | -82.6 | 135.1 | 130.5 | 4.66 | 29.023 | | |
| 1,200.0 | 1,199.8 | 1,191.3 | 1,189.9 | 2.5 | 2.6 | -148.94 | 110.9 | -85.6 | 146.4 | 141.3 | 5.07 | 28.854 | | |
| 1,300.0 | 1,299.6 | 1,290.4 | 1,288.8 | 2.7 | 2.9 | -149.66 | 117.1 | -88.7 | 159.2 | 153.7 | 5.50 | 28.947 | | |
| 1,400.0 | 1,399.4 | 1,389.6 | 1,387.7 | 2.9 | 3.1 | -150.28 | 123.3 | -91.7 | 172.0 | 166.0 | 5.93 | 29.002 | | |
| 1,500.0 | 1,499.1 | 1,488.7 | 1,486.7 | 3.2 | 3.4 | -150.82 | 129.6 | -94.7 | 184.8 | 178.4 | 6.36 | 29.031 | | |
| 1,600.0 | 1,598.9 | 1,587.9 | 1,585.6 | 3.4 | 3.6 | -151.28 | 135.8 | -97.8 | 197.6 | 190.8 | 6.80 | 29.042 | | |
| 1,700.0 | 1,698.6 | 1,687.1 | 1,684.5 | 3.6 | 3.9 | -151.69 | 142.0 | -100.8 | 210.4 | 203.2 | 7.24 | 29.042 | | |
| 1,800.0 | 1,798.4 | 1,786.2 | 1,783.4 | 3.9 | 4.1 | -152.05 | 148.2 | -103.8 | 223.2 | 215.5 | 7.69 | 29.033 | | |
| 1,900.0 | 1,898.1 | 1,885.4 | 1,882.3 | 4.1 | 4.4 | -152.37 | 154.4 | -106.9 | 236.1 | 227.9 | 8.14 | 29.018 | | |
| 2,000.0 | 1,997.9 | 1,984.6 | 1,981.3 | 4.4 | 4.6 | -152.66 | 160.6 | -109.9 | 248.9 | 240.3 | 8.58 | 29.000 | | |
| 2,100.0 | 2,097.6 | 2,083.7 | 2,080.2 | 4.6 | 4.9 | -152.92 | 166.9 | -112.9 | 261.8 | 252.8 | 9.03 | 28.980 | | |
| 2,200.0 | 2,197.4 | 2,182.9 | 2,179.1 | 4.8 | 5.2 | -153.16 | 173.1 | -116.0 | 274.7 | 265.2 | 9.48 | 28.958 | | |
| 2,300.0 | 2,297.2 | 2,282.0 | 2,278.0 | 5.1 | 5.4 | -153.37 | 179.3 | -119.0 | 287.5 | 277.6 | 9.94 | 28.935 | | |
| 2,400.0 | 2,396.9 | 2,381.2 | 2,377.0 | 5.3 | 5.7 | -153.57 | 185.5 | -122.0 | 300.4 | 290.0 | 10.39 | 28.912 | | |
| 2,500.0 | 2,496.7 | 2,480.4 | 2,475.9 | 5.6 | 5.9 | -153.75 | 191.7 | -125.1 | 313.3 | 302.4 | 10.84 | 28.889 | | |
| 2,600.0 | 2,596.4 | 2,579.5 | 2,574.8 | 5.8 | 6.2 | -153.92 | 197.9 | -128.1 | 326.1 | 314.8 | 11.30 | 28.866 | | |
| 2,700.0 | 2,696.2 | 2,678.7 | 2,673.7 | 6.1 | 6.4 | -154.07 | 204.2 | -131.1 | 339.0 | 327.3 | 11.75 | 28.844 | | |
| 2,800.0 | 2,795.9 | 2,777.9 | 2,772.6 | 6.4 | 6.7 | -154.21 | 210.4 | -134.2 | 351.9 | 339.7 | 12.21 | 28.822 | | |
| 2,900.0 | 2,895.7 | 2,877.0 | 2,871.6 | 6.6 | 6.9 | -154.35 | 216.6 | -137.2 | 364.8 | 352.1 | 12.67 | 28.800 | | |
| 3,000.0 | 2,995.5 | 2,976.2 | 2,970.5 | 6.9 | 7.2 | -154.47 | 222.8 | -140.2 | 377.7 | 364.5 | 13.12 | 28.780 | | |
| 3,100.0 | 3,095.2 | 3,075.4 | 3,069.4 | 7.1 | 7.4 | -154.58 | 229.0 | -143.3 | 390.5 | 377.0 | 13.58 | 28.760 | | |
| 3,200.0 | 3,195.0 | 3,174.5 | 3,168.3 | 7.4 | 7.7 | -154.69 | 235.2 | -146.3 | 403.4 | 389.4 | 14.04 | 28.740 | | |
| 3,300.0 | 3,294.7 | 3,273.7 | 3,267.2 | 7.6 | 7.9 | -154.79 | 241.5 | -149.3 | 416.3 | 401.8 | 14.50 | 28.721 | | |
| 3,400.0 | 3,394.5 | 3,372.8 | 3,366.2 | 7.9 | 8.2 | -154.89 | 247.7 | -152.3 | 429.2 | 414.3 | 14.95 | 28.703 | | |
| 3,500.0 | 3,494.2 | 3,472.0 | 3,465.1 | 8.1 | 8.5 | -154.98 | 253.9 | -155.4 | 442.1 | 426.7 | 15.41 | 28.686 | | |
| 3,600.0 | 3,594.0 | 3,571.2 | 3,564.0 | 8.4 | 8.7 | -155.06 | 260.1 | -158.4 | 455.0 | 439.1 | 15.87 | 28.669 | | |
| 3,700.0 | 3,693.7 | 3,670.3 | 3,662.9 | 8.7 | 9.0 | -155.14 | 266.3 | -161.4 | 467.9 | 451.6 | 16.33 | 28.653 | | |
| 3,800.0 | 3,793.5 | 3,769.5 | 3,761.9 | 8.9 | 9.2 | -155.22 | 272.6 | -164.5 | 480.8 | 464.0 | 16.79 | 28.637 | | |
| 3,900.0 | 3,893.3 | 3,868.7 | 3,860.8 | 9.2 | 9.5 | -155.29 | 278.8 | -167.5 | 493.7 | 476.4 | 17.25 | 28.622 | | |
| 4,000.0 | 3,993.0 | 3,967.8 | 3,959.7 | 9.4 | 9.7 | -155.36 | 285.0 | -170.5 | 506.6 | 488.9 | 17.71 | 28.607 | | |
| 4,100.0 | 4,092.8 | 4,067.0 | 4,058.6 | 9.7 | 10.0 | -155.42 | 291.2 | -173.6 | 519.5 | 501.3 | 18.17 | 28.593 | | |
| 4,200.0 | 4,192.5 | 4,166.2 | 4,157.5 | 10.0 | 10.2 | -155.48 | 297.4 | -176.6 | 532.4 | 513.7 | 18.63 | 28.580 | | |
| 4,300.0 | 4,292.3 | 4,265.3 | 4,256.5 | 10.2 | 10.5 | -155.54 | 303.6 | -179.6 | 545.3 | 526.2 | 19.09 | 28.566 | | |
| 4,400.0 | 4,392.0 | 4,364.5 | 4,355.4 | 10.5 | 10.7 | -155.60 | 309.9 | -182.7 | 558.2 | 538.6 | 19.55 | 28.554 | | |
| 4,500.0 | 4,491.8 | 4,463.6 | 4,454.3 | 10.7 | 11.0 | -155.65 | 316.1 | -185.7 | 571.1 | 551.0 | 20.01 | 28.542 | | |
| 4,600.0 | 4,591.6 | 4,562.8 | 4,553.2 | 11.0 | 11.3 | -155.70 | 322.3 | -188.7 | 584.0 | 563.5 | 20.47 | 28.530 | | |
| 4,700.0 | 4,691.3 | 4,662.0 | 4,652.2 | 11.2 | 11.5 | -155.75 | 328.5 | -191.8 | 596.9 | 575.9 | 20.93 | 28.518 | | |
| 4,800.0 | 4,791.1 | 4,761.1 | 4,751.1 | 11.5 | 11.8 | -155.79 | 334.7 | -194.8 | 609.7 | 588.4 | 21.39 | 28.507 | | |
| 4,900.0 | 4,890.9 | 4,860.5 | 4,850.2 | 11.7 | 12.0 | -155.87 | 341.0 | -197.8 | 621.1 | 599.2 | 21.86 | 28.412 | | |
| 5,000.0 | 4,990.9 | 4,960.1 | 4,949.6 | 11.9 | 12.3 | -45.78 | 347.2 | -200.9 | 629.2 | 606.1 | 23.12 | 27.214 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-2301A - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: 0.0 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|-----------------------------|--|
| Survey Program: 0-ISCSWA MWD | | | | | | | | | | | | | Offset Well Error: 0.0 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | Separation Factor | | |
| 5,100.0 | 5,090.9 | 5,059.9 | 5,049.1 | 12.1 | 12.5 | -45.57 | 353.5 | -203.9 | 635.8 | 612.2 | 23.55 | 26.993 | | |
| 5,163.2 | 5,154.1 | 5,113.4 | 5,102.5 | 12.2 | 12.7 | -45.46 | 356.8 | -205.6 | 640.0 | 616.2 | 23.80 | 26.886 SF | | |
| 5,200.0 | 5,190.9 | 5,134.7 | 5,123.7 | 12.3 | 12.7 | 161.96 | 358.5 | -206.4 | 644.5 | 621.4 | 23.04 | 27.972 | | |
| 5,250.0 | 5,240.5 | 5,150.0 | 5,138.9 | 12.4 | 12.8 | 161.65 | 360.3 | -207.3 | 656.3 | 633.4 | 22.95 | 28.594 | | |
| 5,300.0 | 5,289.3 | 5,177.8 | 5,166.3 | 12.6 | 12.9 | 161.27 | 364.4 | -209.3 | 674.3 | 651.5 | 22.73 | 29.662 | | |
| 5,350.0 | 5,336.9 | 5,200.0 | 5,188.0 | 12.8 | 13.0 | 160.66 | 368.7 | -211.4 | 698.1 | 675.8 | 22.34 | 31.255 | | |
| 5,400.0 | 5,382.8 | 5,200.0 | 5,188.0 | 13.0 | 13.0 | 159.28 | 368.7 | -211.4 | 727.6 | 705.8 | 21.77 | 33.427 | | |
| 5,450.0 | 5,426.6 | 5,229.3 | 5,216.2 | 13.3 | 13.1 | 158.20 | 375.5 | -214.7 | 761.1 | 739.9 | 21.16 | 35.966 | | |
| 5,500.0 | 5,467.9 | 5,250.0 | 5,236.0 | 13.6 | 13.2 | 156.48 | 381.2 | -217.5 | 799.1 | 778.6 | 20.51 | 38.958 | | |
| 5,550.0 | 5,506.3 | 5,250.0 | 5,236.0 | 13.9 | 13.2 | 153.04 | 381.2 | -217.5 | 840.4 | 820.3 | 20.02 | 41.971 | | |
| 5,600.0 | 5,541.5 | 5,250.0 | 5,236.0 | 14.4 | 13.2 | 147.87 | 381.2 | -217.5 | 884.6 | 864.6 | 20.03 | 44.171 | | |
| 5,650.0 | 5,573.1 | 5,266.4 | 5,251.4 | 14.8 | 13.3 | 141.58 | 386.3 | -219.9 | 930.6 | 909.8 | 20.80 | 44.734 | | |
| 5,700.0 | 5,600.8 | 5,270.3 | 5,255.0 | 15.3 | 13.3 | 129.83 | 387.5 | -220.6 | 978.3 | 954.9 | 23.47 | 41.682 | | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-2302B - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------------|-------------------------------|------------------------------|----------------------|---------|---------------|--------------------|-----------------------------|
| Survey Program: 0-ISCSWA MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | Between Centres (usft) | Between Ellipses (usft) | | | | Reference | Offset | Highside Toolface (°) |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -91.05 | -1.8 | -99.4 | 99.4 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -91.05 | -1.8 | -99.4 | 99.4 | 99.2 | 0.19 | 529.533 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -91.05 | -1.8 | -99.4 | 99.4 | 98.7 | 0.64 | 155.965 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -91.05 | -1.8 | -99.4 | 99.4 | 98.3 | 1.09 | 91.450 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -91.05 | -1.8 | -99.4 | 99.4 | 97.8 | 1.54 | 64.691 | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -91.05 | -1.8 | -99.4 | 99.4 | 97.4 | 1.99 | 50.046 | | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -91.05 | -1.8 | -99.4 | 99.4 | 96.9 | 2.44 | 40.809 | | |
| 700.0 | 700.0 | 700.0 | 700.0 | 1.4 | 1.4 | -91.05 | -1.8 | -99.4 | 99.4 | 96.5 | 2.88 | 34.450 | | |
| 800.0 | 800.0 | 800.0 | 800.0 | 1.7 | 1.7 | -91.05 | -1.8 | -99.4 | 99.4 | 96.0 | 3.33 | 29.805 | | |
| 900.0 | 900.0 | 900.0 | 900.0 | 1.9 | 1.9 | -91.05 | -1.8 | -99.4 | 99.4 | 95.6 | 3.78 | 26.264 | | |
| 1,000.0 | 1,000.0 | 1,000.0 | 1,000.0 | 2.1 | 2.1 | -91.05 | -1.8 | -99.4 | 99.4 | 95.1 | 4.23 | 23.475 CC, ES | | |
| 1,100.0 | 1,100.0 | 1,099.0 | 1,099.0 | 2.3 | 2.3 | 160.22 | -0.2 | -99.8 | 101.5 | 96.8 | 4.66 | 21.773 | | |
| 1,200.0 | 1,199.8 | 1,197.5 | 1,197.4 | 2.5 | 2.6 | 163.72 | 4.7 | -101.2 | 108.0 | 102.9 | 5.07 | 21.301 SF | | |
| 1,300.0 | 1,299.6 | 1,296.7 | 1,296.3 | 2.7 | 2.8 | 167.88 | 11.4 | -103.0 | 117.3 | 111.8 | 5.49 | 21.356 | | |
| 1,400.0 | 1,399.4 | 1,396.0 | 1,395.3 | 2.9 | 3.0 | 171.41 | 18.1 | -104.9 | 127.1 | 121.2 | 5.92 | 21.467 | | |
| 1,500.0 | 1,499.1 | 1,495.2 | 1,494.3 | 3.2 | 3.3 | 174.43 | 24.7 | -106.7 | 137.4 | 131.0 | 6.36 | 21.610 | | |
| 1,600.0 | 1,598.9 | 1,594.4 | 1,593.3 | 3.4 | 3.5 | 177.03 | 31.4 | -108.6 | 148.0 | 141.2 | 6.80 | 21.768 | | |
| 1,700.0 | 1,698.6 | 1,693.7 | 1,692.3 | 3.6 | 3.7 | 179.28 | 38.1 | -110.4 | 158.8 | 151.6 | 7.24 | 21.933 | | |
| 1,800.0 | 1,798.4 | 1,792.9 | 1,791.3 | 3.9 | 4.0 | -178.76 | 44.8 | -112.3 | 169.8 | 162.2 | 7.69 | 22.099 | | |
| 1,900.0 | 1,898.1 | 1,892.1 | 1,890.3 | 4.1 | 4.2 | -177.04 | 51.4 | -114.1 | 181.1 | 172.9 | 8.13 | 22.262 | | |
| 2,000.0 | 1,997.9 | 1,991.3 | 1,989.3 | 4.4 | 4.5 | -175.52 | 58.1 | -116.0 | 192.4 | 183.8 | 8.58 | 22.419 | | |
| 2,100.0 | 2,097.6 | 2,090.6 | 2,088.2 | 4.6 | 4.7 | -174.17 | 64.8 | -117.8 | 203.9 | 194.9 | 9.03 | 22.570 | | |
| 2,200.0 | 2,197.4 | 2,189.8 | 2,187.2 | 4.8 | 5.0 | -172.97 | 71.4 | -119.7 | 215.5 | 206.0 | 9.49 | 22.714 | | |
| 2,300.0 | 2,297.2 | 2,289.0 | 2,286.2 | 5.1 | 5.2 | -171.89 | 78.1 | -121.5 | 227.1 | 217.2 | 9.94 | 22.850 | | |
| 2,400.0 | 2,396.9 | 2,388.3 | 2,385.2 | 5.3 | 5.4 | -170.91 | 84.8 | -123.4 | 238.9 | 228.5 | 10.40 | 22.979 | | |
| 2,500.0 | 2,496.7 | 2,487.5 | 2,484.2 | 5.6 | 5.7 | -170.03 | 91.4 | -125.2 | 250.7 | 239.8 | 10.85 | 23.100 | | |
| 2,600.0 | 2,596.4 | 2,586.7 | 2,583.2 | 5.8 | 5.9 | -169.22 | 98.1 | -127.1 | 262.5 | 251.2 | 11.31 | 23.215 | | |
| 2,700.0 | 2,696.2 | 2,686.0 | 2,682.2 | 6.1 | 6.2 | -168.49 | 104.8 | -128.9 | 274.4 | 262.6 | 11.77 | 23.324 | | |
| 2,800.0 | 2,795.9 | 2,785.2 | 2,781.2 | 6.4 | 6.4 | -167.82 | 111.5 | -130.8 | 286.4 | 274.1 | 12.22 | 23.426 | | |
| 2,900.0 | 2,895.7 | 2,884.4 | 2,880.2 | 6.6 | 6.7 | -167.20 | 118.1 | -132.6 | 298.3 | 285.6 | 12.68 | 23.523 | | |
| 3,000.0 | 2,995.5 | 2,983.7 | 2,979.1 | 6.9 | 6.9 | -166.62 | 124.8 | -134.5 | 310.3 | 297.2 | 13.14 | 23.614 | | |
| 3,100.0 | 3,095.2 | 3,082.9 | 3,078.1 | 7.1 | 7.2 | -166.09 | 131.5 | -136.3 | 322.4 | 308.8 | 13.60 | 23.701 | | |
| 3,200.0 | 3,195.0 | 3,182.1 | 3,177.1 | 7.4 | 7.4 | -165.60 | 138.1 | -138.2 | 334.4 | 320.4 | 14.06 | 23.782 | | |
| 3,300.0 | 3,294.7 | 3,281.3 | 3,276.1 | 7.6 | 7.7 | -165.15 | 144.8 | -140.0 | 346.5 | 332.0 | 14.52 | 23.860 | | |
| 3,400.0 | 3,394.5 | 3,380.6 | 3,375.1 | 7.9 | 8.0 | -164.72 | 151.5 | -141.9 | 358.6 | 343.6 | 14.98 | 23.934 | | |
| 3,500.0 | 3,494.2 | 3,479.8 | 3,474.1 | 8.1 | 8.2 | -164.32 | 158.1 | -143.7 | 370.7 | 355.3 | 15.44 | 24.003 | | |
| 3,600.0 | 3,594.0 | 3,579.0 | 3,573.1 | 8.4 | 8.5 | -163.95 | 164.8 | -145.6 | 382.9 | 367.0 | 15.91 | 24.070 | | |
| 3,700.0 | 3,693.7 | 3,678.3 | 3,672.1 | 8.7 | 8.7 | -163.60 | 171.5 | -147.4 | 395.0 | 378.6 | 16.37 | 24.133 | | |
| 3,800.0 | 3,793.5 | 3,777.5 | 3,771.1 | 8.9 | 9.0 | -163.27 | 178.2 | -149.3 | 407.2 | 390.3 | 16.83 | 24.193 | | |
| 3,900.0 | 3,893.3 | 3,876.7 | 3,870.1 | 9.2 | 9.2 | -162.96 | 184.8 | -151.1 | 419.4 | 402.1 | 17.29 | 24.250 | | |
| 4,000.0 | 3,993.0 | 3,976.0 | 3,969.0 | 9.4 | 9.5 | -162.66 | 191.5 | -153.0 | 431.5 | 413.8 | 17.76 | 24.304 | | |
| 4,100.0 | 4,092.8 | 4,075.2 | 4,068.0 | 9.7 | 9.7 | -162.39 | 198.2 | -154.8 | 443.7 | 425.5 | 18.22 | 24.356 | | |
| 4,200.0 | 4,192.5 | 4,174.4 | 4,167.0 | 10.0 | 10.0 | -162.13 | 204.8 | -156.7 | 456.0 | 437.3 | 18.68 | 24.406 | | |
| 4,300.0 | 4,292.3 | 4,273.7 | 4,266.0 | 10.2 | 10.2 | -161.88 | 211.5 | -158.5 | 468.2 | 449.0 | 19.15 | 24.454 | | |
| 4,400.0 | 4,392.0 | 4,372.9 | 4,365.0 | 10.5 | 10.5 | -161.64 | 218.2 | -160.4 | 480.4 | 460.8 | 19.61 | 24.499 | | |
| 4,500.0 | 4,491.8 | 4,472.1 | 4,464.0 | 10.7 | 10.7 | -161.42 | 224.8 | -162.2 | 492.6 | 472.6 | 20.07 | 24.543 | | |
| 4,600.0 | 4,591.6 | 4,571.3 | 4,563.0 | 11.0 | 11.0 | -161.21 | 231.5 | -164.1 | 504.9 | 484.3 | 20.54 | 24.585 | | |
| 4,700.0 | 4,691.3 | 4,670.6 | 4,662.0 | 11.2 | 11.2 | -161.00 | 238.2 | -165.9 | 517.1 | 496.1 | 21.00 | 24.625 | | |
| 4,800.0 | 4,791.1 | 4,769.8 | 4,761.0 | 11.5 | 11.5 | -160.81 | 244.9 | -167.8 | 529.4 | 507.9 | 21.46 | 24.663 | | |
| 4,900.0 | 4,890.9 | 4,869.2 | 4,860.1 | 11.7 | 11.7 | -160.63 | 251.5 | -169.6 | 540.0 | 518.1 | 21.94 | 24.691 | | |
| 5,000.0 | 4,990.9 | 4,968.9 | 4,959.5 | 11.9 | 12.0 | -50.32 | 258.2 | -171.5 | 547.4 | 524.4 | 23.00 | 23.797 | | |
| 5,100.0 | 5,090.9 | 5,068.6 | 5,059.0 | 12.1 | 12.3 | -49.91 | 264.9 | -173.3 | 553.1 | 529.7 | 23.44 | 23.601 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-2302B - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: 0.0 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|-----------------------------|
| Survey Program: 0-ISCSWA MWD | | | | | | | | | | | | | Offset Well Error: 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | Separation Factor | |
| 5,163.2 | 5,154.1 | 5,131.7 | 5,121.9 | 12.2 | 12.4 | -49.65 | 269.2 | -174.5 | 556.8 | 533.0 | 23.71 | 23.481 | |
| 5,200.0 | 5,190.9 | 5,168.3 | 5,158.4 | 12.3 | 12.5 | 157.91 | 271.6 | -175.2 | 560.1 | 536.9 | 23.19 | 24.147 | |
| 5,250.0 | 5,240.5 | 5,200.0 | 5,190.1 | 12.4 | 12.6 | 157.79 | 273.8 | -175.8 | 568.7 | 545.5 | 23.17 | 24.546 | |
| 5,300.0 | 5,289.3 | 5,233.7 | 5,223.6 | 12.6 | 12.7 | 157.63 | 277.1 | -176.7 | 583.0 | 560.0 | 22.99 | 25.359 | |
| 5,350.0 | 5,336.9 | 5,250.0 | 5,239.7 | 12.8 | 12.7 | 157.01 | 279.4 | -177.4 | 603.5 | 580.9 | 22.62 | 26.681 | |
| 5,400.0 | 5,382.8 | 5,277.0 | 5,266.2 | 13.0 | 12.8 | 156.42 | 284.4 | -178.7 | 629.5 | 607.3 | 22.15 | 28.418 | |
| 5,450.0 | 5,426.6 | 5,300.0 | 5,288.6 | 13.3 | 12.9 | 155.48 | 289.7 | -180.2 | 660.6 | 639.0 | 21.58 | 30.615 | |
| 5,500.0 | 5,467.9 | 5,300.0 | 5,288.6 | 13.6 | 12.9 | 153.04 | 289.7 | -180.2 | 696.3 | 675.3 | 21.01 | 33.145 | |
| 5,550.0 | 5,506.3 | 5,322.7 | 5,310.4 | 13.9 | 13.0 | 150.99 | 295.8 | -181.9 | 735.5 | 714.9 | 20.52 | 35.845 | |
| 5,600.0 | 5,541.5 | 5,332.6 | 5,319.7 | 14.4 | 13.1 | 147.15 | 298.7 | -182.7 | 777.9 | 757.5 | 20.39 | 38.154 | |
| 5,650.0 | 5,573.1 | 5,350.0 | 5,336.2 | 14.8 | 13.1 | 142.38 | 304.3 | -184.3 | 823.0 | 802.2 | 20.81 | 39.559 | |
| 5,700.0 | 5,600.8 | 5,350.0 | 5,336.2 | 15.3 | 13.1 | 132.68 | 304.3 | -184.3 | 869.7 | 846.8 | 22.91 | 37.967 | |
| 5,750.0 | 5,624.4 | 5,350.0 | 5,336.2 | 15.9 | 13.1 | 117.23 | 304.3 | -184.3 | 917.7 | 891.1 | 26.60 | 34.494 | |
| 5,800.0 | 5,643.7 | 5,350.0 | 5,336.2 | 16.5 | 13.1 | 94.49 | 304.3 | -184.3 | 966.4 | 936.4 | 29.97 | 32.243 | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-2303A - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|---|-----------------|------------------------------|-------------------------------|------------------------------|----------------------|--------------------|----------|
| Survey Program: 0-ISCSWA MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | Total Uncertainty Axis | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -1.07 | 75.0 | -1.4 | 75.1 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -1.07 | 75.0 | -1.4 | 75.1 | 74.9 | 0.19 | 399.945 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -1.07 | 75.0 | -1.4 | 75.1 | 74.4 | 0.64 | 117.797 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -1.07 | 75.0 | -1.4 | 75.1 | 74.0 | 1.09 | 69.070 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -1.07 | 75.0 | -1.4 | 75.1 | 73.5 | 1.54 | 48.860 | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -1.07 | 75.0 | -1.4 | 75.1 | 73.1 | 1.99 | 37.799 | | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -1.07 | 75.0 | -1.4 | 75.1 | 72.6 | 2.44 | 30.822 | | |
| 700.0 | 700.0 | 700.0 | 700.0 | 1.4 | 1.4 | -1.07 | 75.0 | -1.4 | 75.1 | 72.2 | 2.88 | 26.019 | | |
| 800.0 | 800.0 | 800.0 | 800.0 | 1.7 | 1.7 | -1.07 | 75.0 | -1.4 | 75.1 | 71.7 | 3.33 | 22.511 | | |
| 900.0 | 900.0 | 900.0 | 900.0 | 1.9 | 1.9 | -1.07 | 75.0 | -1.4 | 75.1 | 71.3 | 3.78 | 19.837 | | |
| 966.7 | 966.7 | 966.7 | 966.7 | 2.0 | 2.0 | -1.07 | 75.0 | -1.4 | 75.1 | 71.0 | 4.08 | 18.381 CC | | |
| 1,000.0 | 1,000.0 | 1,000.0 | 1,000.0 | 2.1 | 2.1 | -1.07 | 75.0 | -1.4 | 75.1 | 70.8 | 4.23 | 17.731 ES | | |
| 1,100.0 | 1,100.0 | 1,097.4 | 1,097.4 | 2.3 | 2.3 | -112.27 | 76.7 | -1.5 | 77.4 | 72.7 | 4.66 | 16.610 SF | | |
| 1,200.0 | 1,199.8 | 1,194.3 | 1,194.1 | 2.5 | 2.6 | -115.43 | 81.6 | -1.9 | 84.6 | 79.5 | 5.08 | 16.659 | | |
| 1,300.0 | 1,299.6 | 1,293.4 | 1,293.0 | 2.7 | 2.8 | -119.11 | 88.5 | -2.3 | 94.8 | 89.3 | 5.51 | 17.199 | | |
| 1,400.0 | 1,399.4 | 1,392.7 | 1,392.1 | 2.9 | 3.0 | -122.07 | 95.4 | -2.8 | 105.3 | 99.3 | 5.95 | 17.704 | | |
| 1,500.0 | 1,499.1 | 1,492.0 | 1,491.2 | 3.2 | 3.2 | -124.50 | 102.3 | -3.3 | 116.0 | 109.6 | 6.39 | 18.163 | | |
| 1,600.0 | 1,598.9 | 1,591.3 | 1,590.2 | 3.4 | 3.5 | -126.51 | 109.2 | -3.8 | 126.9 | 120.0 | 6.83 | 18.576 | | |
| 1,700.0 | 1,698.6 | 1,690.7 | 1,689.3 | 3.6 | 3.7 | -128.20 | 116.2 | -4.3 | 137.9 | 130.6 | 7.28 | 18.948 | | |
| 1,800.0 | 1,798.4 | 1,790.0 | 1,788.4 | 3.9 | 4.0 | -129.64 | 123.1 | -4.8 | 149.0 | 141.3 | 7.73 | 19.282 | | |
| 1,900.0 | 1,898.1 | 1,889.3 | 1,887.5 | 4.1 | 4.2 | -130.89 | 130.0 | -5.2 | 160.2 | 152.0 | 8.18 | 19.585 | | |
| 2,000.0 | 1,997.9 | 1,988.6 | 1,986.5 | 4.4 | 4.5 | -131.96 | 136.9 | -5.7 | 171.5 | 162.8 | 8.63 | 19.858 | | |
| 2,100.0 | 2,097.6 | 2,087.9 | 2,085.6 | 4.6 | 4.7 | -132.91 | 143.8 | -6.2 | 182.8 | 173.7 | 9.09 | 20.106 | | |
| 2,200.0 | 2,197.4 | 2,187.2 | 2,184.7 | 4.8 | 4.9 | -133.75 | 150.7 | -6.7 | 194.1 | 184.6 | 9.55 | 20.332 | | |
| 2,300.0 | 2,297.2 | 2,286.6 | 2,283.7 | 5.1 | 5.2 | -134.49 | 157.6 | -7.2 | 205.5 | 195.5 | 10.01 | 20.538 | | |
| 2,400.0 | 2,396.9 | 2,385.9 | 2,382.8 | 5.3 | 5.4 | -135.15 | 164.5 | -7.7 | 216.9 | 206.5 | 10.47 | 20.726 | | |
| 2,500.0 | 2,496.7 | 2,485.2 | 2,481.9 | 5.6 | 5.7 | -135.75 | 171.4 | -8.1 | 228.4 | 217.5 | 10.93 | 20.900 | | |
| 2,600.0 | 2,596.4 | 2,584.5 | 2,581.0 | 5.8 | 5.9 | -136.29 | 178.4 | -8.6 | 239.9 | 228.5 | 11.39 | 21.059 | | |
| 2,700.0 | 2,696.2 | 2,683.8 | 2,680.0 | 6.1 | 6.2 | -136.78 | 185.3 | -9.1 | 251.4 | 239.5 | 11.85 | 21.206 | | |
| 2,800.0 | 2,795.9 | 2,783.1 | 2,779.1 | 6.4 | 6.4 | -137.23 | 192.2 | -9.6 | 262.9 | 250.5 | 12.32 | 21.343 | | |
| 2,900.0 | 2,895.7 | 2,882.4 | 2,878.2 | 6.6 | 6.7 | -137.64 | 199.1 | -10.1 | 274.4 | 261.6 | 12.78 | 21.469 | | |
| 3,000.0 | 2,995.5 | 2,981.8 | 2,977.3 | 6.9 | 6.9 | -138.02 | 206.0 | -10.6 | 285.9 | 272.7 | 13.25 | 21.587 | | |
| 3,100.0 | 3,095.2 | 3,081.1 | 3,076.3 | 7.1 | 7.2 | -138.37 | 212.9 | -11.0 | 297.5 | 283.8 | 13.71 | 21.696 | | |
| 3,200.0 | 3,195.0 | 3,180.4 | 3,175.4 | 7.4 | 7.4 | -138.69 | 219.8 | -11.5 | 309.0 | 294.8 | 14.18 | 21.799 | | |
| 3,300.0 | 3,294.7 | 3,279.7 | 3,274.5 | 7.6 | 7.7 | -138.99 | 226.7 | -12.0 | 320.6 | 305.9 | 14.64 | 21.895 | | |
| 3,400.0 | 3,394.5 | 3,379.0 | 3,373.6 | 7.9 | 7.9 | -139.27 | 233.6 | -12.5 | 332.2 | 317.1 | 15.11 | 21.985 | | |
| 3,500.0 | 3,494.2 | 3,478.3 | 3,472.6 | 8.1 | 8.2 | -139.53 | 240.6 | -13.0 | 343.7 | 328.2 | 15.58 | 22.069 | | |
| 3,600.0 | 3,594.0 | 3,577.7 | 3,571.7 | 8.4 | 8.4 | -139.77 | 247.5 | -13.5 | 355.3 | 339.3 | 16.04 | 22.149 | | |
| 3,700.0 | 3,693.7 | 3,677.0 | 3,670.8 | 8.7 | 8.7 | -140.00 | 254.4 | -13.9 | 366.9 | 350.4 | 16.51 | 22.224 | | |
| 3,800.0 | 3,793.5 | 3,776.3 | 3,769.9 | 8.9 | 8.9 | -140.21 | 261.3 | -14.4 | 378.5 | 361.5 | 16.98 | 22.295 | | |
| 3,900.0 | 3,893.3 | 3,875.6 | 3,868.9 | 9.2 | 9.2 | -140.41 | 268.2 | -14.9 | 390.1 | 372.7 | 17.45 | 22.362 | | |
| 4,000.0 | 3,993.0 | 3,974.9 | 3,968.0 | 9.4 | 9.5 | -140.60 | 275.1 | -15.4 | 401.7 | 383.8 | 17.91 | 22.425 | | |
| 4,100.0 | 4,092.8 | 4,074.2 | 4,067.1 | 9.7 | 9.7 | -140.78 | 282.0 | -15.9 | 413.3 | 395.0 | 18.38 | 22.485 | | |
| 4,200.0 | 4,192.5 | 4,173.6 | 4,166.1 | 10.0 | 10.0 | -140.95 | 288.9 | -16.4 | 425.0 | 406.1 | 18.85 | 22.542 | | |
| 4,300.0 | 4,292.3 | 4,272.9 | 4,265.2 | 10.2 | 10.2 | -141.11 | 295.8 | -16.8 | 436.6 | 417.3 | 19.32 | 22.597 | | |
| 4,400.0 | 4,392.0 | 4,372.2 | 4,364.3 | 10.5 | 10.5 | -141.26 | 302.8 | -17.3 | 448.2 | 428.4 | 19.79 | 22.648 | | |
| 4,500.0 | 4,491.8 | 4,471.5 | 4,463.4 | 10.7 | 10.7 | -141.41 | 309.7 | -17.8 | 459.8 | 439.6 | 20.26 | 22.698 | | |
| 4,600.0 | 4,591.6 | 4,570.8 | 4,562.4 | 11.0 | 11.0 | -141.54 | 316.6 | -18.3 | 471.5 | 450.7 | 20.73 | 22.745 | | |
| 4,700.0 | 4,691.3 | 4,670.1 | 4,661.5 | 11.2 | 11.2 | -141.67 | 323.5 | -18.8 | 483.1 | 461.9 | 21.20 | 22.790 | | |
| 4,800.0 | 4,791.1 | 4,769.4 | 4,760.6 | 11.5 | 11.5 | -141.80 | 330.4 | -19.3 | 494.7 | 473.1 | 21.67 | 22.833 | | |
| 4,900.0 | 4,890.9 | 4,868.9 | 4,859.8 | 11.7 | 11.7 | -141.92 | 337.3 | -19.7 | 505.0 | 482.9 | 22.13 | 22.814 | | |
| 5,000.0 | 4,990.9 | 4,968.6 | 4,959.3 | 11.9 | 12.0 | -141.77 | 344.3 | -20.2 | 512.5 | 489.3 | 23.27 | 22.022 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-2303A - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|----------|
| Survey Program: 0-ISCSWA MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | Separation Factor | | |
| 5,100.0 | 5,090.9 | 5,068.4 | 5,058.8 | 12.1 | 12.2 | -31.41 | 351.2 | -20.7 | 518.7 | 495.0 | 23.70 | 21.886 | | |
| 5,163.2 | 5,154.1 | 5,122.2 | 5,112.5 | 12.2 | 12.4 | -31.21 | 355.0 | -21.0 | 522.8 | 498.9 | 23.95 | 21.827 | | |
| 5,200.0 | 5,190.9 | 5,150.0 | 5,140.1 | 12.3 | 12.5 | 176.42 | 358.3 | -21.2 | 527.8 | 504.4 | 23.33 | 22.621 | | |
| 5,250.0 | 5,240.5 | 5,166.6 | 5,156.5 | 12.4 | 12.5 | 176.48 | 360.9 | -21.4 | 540.1 | 516.9 | 23.23 | 23.255 | | |
| 5,300.0 | 5,289.3 | 5,200.0 | 5,189.2 | 12.6 | 12.6 | 176.75 | 367.7 | -21.9 | 559.4 | 536.4 | 22.97 | 24.351 | | |
| 5,350.0 | 5,336.9 | 5,200.0 | 5,189.2 | 12.8 | 12.6 | 176.56 | 367.7 | -21.9 | 584.5 | 562.1 | 22.43 | 26.059 | | |
| 5,400.0 | 5,382.8 | 5,231.0 | 5,219.0 | 13.0 | 12.8 | 176.84 | 375.9 | -22.4 | 614.9 | 593.1 | 21.79 | 28.223 | | |
| 5,450.0 | 5,426.6 | 5,250.0 | 5,237.1 | 13.3 | 12.8 | 176.93 | 381.8 | -22.9 | 650.3 | 629.4 | 20.93 | 31.074 | | |
| 5,500.0 | 5,467.9 | 5,250.0 | 5,237.1 | 13.6 | 12.8 | 176.52 | 381.8 | -22.9 | 690.0 | 670.1 | 19.86 | 34.746 | | |
| 5,550.0 | 5,506.3 | 5,272.7 | 5,258.3 | 13.9 | 13.0 | 176.65 | 389.7 | -23.4 | 732.6 | 713.9 | 18.68 | 39.216 | | |
| 5,600.0 | 5,541.5 | 5,281.4 | 5,266.4 | 14.4 | 13.0 | 176.22 | 393.0 | -23.6 | 778.1 | 760.7 | 17.35 | 44.842 | | |
| 5,650.0 | 5,573.1 | 5,300.0 | 5,283.5 | 14.8 | 13.1 | 176.05 | 400.4 | -24.2 | 825.8 | 809.9 | 15.93 | 51.840 | | |
| 5,700.0 | 5,600.8 | 5,300.0 | 5,283.5 | 15.3 | 13.1 | 173.93 | 400.4 | -24.2 | 874.5 | 860.0 | 14.54 | 60.158 | | |
| 5,750.0 | 5,624.4 | 5,300.0 | 5,283.5 | 15.9 | 13.1 | 165.69 | 400.4 | -24.2 | 924.1 | 909.7 | 14.45 | 63.956 | | |
| 5,800.0 | 5,643.7 | 5,300.0 | 5,283.5 | 16.5 | 13.1 | 27.62 | 400.4 | -24.2 | 974.1 | 957.3 | 16.82 | 57.915 | | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-2304B - HZ - Plan #1 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|---|-----------------|------------------------------|----------------------|---------|--------------|--------------------|----------|
| Survey Program: 0-ISCSA MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -91.05 | -0.6 | -33.2 | 33.2 | 33.0 | 0.19 | 177.003 | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -91.05 | -0.6 | -33.2 | 33.2 | 32.6 | 0.64 | 52.133 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -91.05 | -0.6 | -33.2 | 33.2 | 32.1 | 1.09 | 30.568 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -91.05 | -0.6 | -33.2 | 33.2 | 31.7 | 1.54 | 21.624 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -91.05 | -0.6 | -33.2 | 33.2 | 31.2 | 1.99 | 16.729 | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -91.05 | -0.6 | -33.2 | 33.2 | 30.8 | 2.44 | 13.641 | | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -91.05 | -0.6 | -33.2 | 33.2 | 29.5 | 2.89 | 11.213 | | |
| 700.0 | 700.0 | 700.6 | 700.5 | 1.4 | 1.4 | -88.37 | 0.9 | -32.3 | 32.3 | 26.9 | 3.34 | 9.047 | | |
| 800.0 | 800.0 | 800.9 | 800.7 | 1.7 | 1.7 | -79.53 | 5.5 | -29.7 | 30.2 | 24.8 | 3.79 | 7.548 | | |
| 900.0 | 900.0 | 900.6 | 900.2 | 1.9 | 1.9 | -66.29 | 11.5 | -26.2 | 28.6 | 24.5 | 4.00 | 7.120 CC, ES | | |
| 945.1 | 945.1 | 945.6 | 945.1 | 2.0 | 2.0 | -60.00 | 14.2 | -24.6 | 28.5 | 24.5 | 4.24 | 6.767 SF | | |
| 1,000.0 | 1,000.0 | 1,000.4 | 999.7 | 2.1 | 2.1 | -52.35 | 17.5 | -22.7 | 28.7 | 27.3 | 4.70 | 6.798 | | |
| 1,100.0 | 1,100.0 | 1,100.1 | 1,099.2 | 2.3 | 2.4 | -150.82 | 23.6 | -19.3 | 32.0 | 33.9 | 5.13 | 7.604 | | |
| 1,200.0 | 1,199.8 | 1,199.8 | 1,198.7 | 2.5 | 2.6 | -144.81 | 29.6 | -15.8 | 39.0 | 42.2 | 5.57 | 8.565 | | |
| 1,300.0 | 1,299.6 | 1,299.4 | 1,298.0 | 2.7 | 2.9 | -142.04 | 35.6 | -12.3 | 47.7 | 50.5 | 6.02 | 9.385 | | |
| 1,400.0 | 1,399.4 | 1,399.0 | 1,397.4 | 2.9 | 3.1 | -140.14 | 41.6 | -8.8 | 56.5 | 58.9 | 6.48 | 10.089 | | |
| 1,500.0 | 1,499.1 | 1,498.6 | 1,496.7 | 3.2 | 3.4 | -138.75 | 47.6 | -5.4 | 65.4 | 67.3 | 6.94 | 10.698 | | |
| 1,600.0 | 1,598.9 | 1,598.2 | 1,596.1 | 3.4 | 3.6 | -137.69 | 53.7 | -1.9 | 74.2 | 75.7 | 7.40 | 11.227 | | |
| 1,700.0 | 1,698.6 | 1,697.8 | 1,695.5 | 3.6 | 3.9 | -136.85 | 59.7 | 1.6 | 83.1 | 84.1 | 7.87 | 11.691 | | |
| 1,800.0 | 1,798.4 | 1,797.4 | 1,794.8 | 3.9 | 4.1 | -136.18 | 65.7 | 5.1 | 92.0 | 92.6 | 8.34 | 12.099 | | |
| 1,900.0 | 1,898.1 | 1,897.0 | 1,894.2 | 4.1 | 4.4 | -135.63 | 71.7 | 8.5 | 100.9 | 101.0 | 8.81 | 12.462 | | |
| 2,000.0 | 1,997.9 | 1,996.6 | 1,993.5 | 4.4 | 4.6 | -135.16 | 77.7 | 12.0 | 109.8 | 109.5 | 9.29 | 12.785 | | |
| 2,100.0 | 2,097.6 | 2,096.2 | 2,092.9 | 4.6 | 4.9 | -134.77 | 83.7 | 15.5 | 118.8 | 117.9 | 9.77 | 13.076 | | |
| 2,200.0 | 2,197.4 | 2,195.8 | 2,192.2 | 4.8 | 5.1 | -134.43 | 89.8 | 19.0 | 127.7 | 126.4 | 10.24 | 13.337 | | |
| 2,300.0 | 2,297.2 | 2,295.4 | 2,291.6 | 5.1 | 5.4 | -134.14 | 95.8 | 22.4 | 136.6 | 134.8 | 10.72 | 13.574 | | |
| 2,400.0 | 2,396.9 | 2,395.0 | 2,390.9 | 5.3 | 5.6 | -133.88 | 101.8 | 25.9 | 145.6 | 143.3 | 11.20 | 13.790 | | |
| 2,500.0 | 2,496.7 | 2,494.6 | 2,490.3 | 5.6 | 5.9 | -133.65 | 107.8 | 29.4 | 154.5 | 151.8 | 11.69 | 13.987 | | |
| 2,600.0 | 2,596.4 | 2,594.2 | 2,589.7 | 5.8 | 6.1 | -133.45 | 113.8 | 32.9 | 163.4 | 160.2 | 12.17 | 14.167 | | |
| 2,700.0 | 2,696.2 | 2,693.8 | 2,689.0 | 6.1 | 6.4 | -133.26 | 119.8 | 36.3 | 172.4 | 168.7 | 12.65 | 14.333 | | |
| 2,800.0 | 2,795.9 | 2,793.4 | 2,788.4 | 6.4 | 6.6 | -133.10 | 125.9 | 39.8 | 181.3 | 177.1 | 13.14 | 14.486 | | |
| 2,900.0 | 2,895.7 | 2,893.0 | 2,887.7 | 6.6 | 6.9 | -132.95 | 131.9 | 43.3 | 190.3 | 185.6 | 13.62 | 14.628 | | |
| 3,000.0 | 2,995.5 | 2,992.6 | 2,987.1 | 6.9 | 7.2 | -132.81 | 137.9 | 46.7 | 199.2 | 194.1 | 14.11 | 14.759 | | |
| 3,100.0 | 3,095.2 | 3,092.2 | 3,086.4 | 7.1 | 7.4 | -132.69 | 143.9 | 50.2 | 208.2 | 202.5 | 14.59 | 14.881 | | |
| 3,200.0 | 3,195.0 | 3,191.8 | 3,185.8 | 7.4 | 7.7 | -132.58 | 149.9 | 53.7 | 217.1 | 211.0 | 15.08 | 14.995 | | |
| 3,300.0 | 3,294.7 | 3,291.4 | 3,285.1 | 7.6 | 7.9 | -132.47 | 155.9 | 57.2 | 226.1 | 219.5 | 15.56 | 15.101 | | |
| 3,400.0 | 3,394.5 | 3,391.0 | 3,384.5 | 7.9 | 8.2 | -132.37 | 162.0 | 60.6 | 235.0 | 227.9 | 16.05 | 15.201 | | |
| 3,500.0 | 3,494.2 | 3,490.6 | 3,483.9 | 8.1 | 8.4 | -132.28 | 168.0 | 64.1 | 244.0 | 236.4 | 16.54 | 15.295 | | |
| 3,600.0 | 3,594.0 | 3,590.2 | 3,583.2 | 8.4 | 8.7 | -132.20 | 174.0 | 67.6 | 252.9 | 244.9 | 17.02 | 15.383 | | |
| 3,700.0 | 3,693.7 | 3,689.8 | 3,682.6 | 8.7 | 8.9 | -132.12 | 180.0 | 71.1 | 261.9 | 253.3 | 17.51 | 15.466 | | |
| 3,800.0 | 3,793.5 | 3,789.4 | 3,781.9 | 8.9 | 9.2 | -132.05 | 186.0 | 74.5 | 270.8 | 261.8 | 18.00 | 15.544 | | |
| 3,900.0 | 3,893.3 | 3,889.0 | 3,881.3 | 9.2 | 9.4 | -131.98 | 192.0 | 78.0 | 279.8 | 270.3 | 18.49 | 15.618 | | |
| 4,000.0 | 3,993.0 | 3,988.6 | 3,980.6 | 9.4 | 9.7 | -131.92 | 198.1 | 81.5 | 288.7 | 278.7 | 18.98 | 15.687 | | |
| 4,100.0 | 4,092.8 | 4,088.2 | 4,080.0 | 9.7 | 10.0 | -131.86 | 204.1 | 85.0 | 297.7 | 287.2 | 19.47 | 15.754 | | |
| 4,200.0 | 4,192.5 | 4,187.8 | 4,179.3 | 10.0 | 10.2 | -131.80 | 210.1 | 88.4 | 306.6 | 295.6 | 19.95 | 15.816 | | |
| 4,300.0 | 4,292.3 | 4,287.4 | 4,278.7 | 10.2 | 10.5 | -131.75 | 216.1 | 91.9 | 315.6 | 304.1 | 20.44 | 15.876 | | |
| 4,400.0 | 4,392.0 | 4,387.0 | 4,378.1 | 10.5 | 10.7 | -131.70 | 222.1 | 95.4 | 324.6 | 312.6 | 20.93 | 15.933 | | |
| 4,500.0 | 4,491.8 | 4,486.5 | 4,477.4 | 10.7 | 11.0 | -131.65 | 228.1 | 98.9 | 333.5 | 321.0 | 21.42 | 15.987 | | |
| 4,600.0 | 4,591.6 | 4,586.1 | 4,576.8 | 11.0 | 11.2 | -131.61 | 234.2 | 102.3 | 342.5 | 329.5 | 21.91 | 16.039 | | |
| 4,700.0 | 4,691.3 | 4,685.7 | 4,676.1 | 11.2 | 11.5 | -131.56 | 240.2 | 105.8 | 351.4 | 338.0 | 22.40 | 16.088 | | |
| 4,800.0 | 4,791.1 | 4,785.3 | 4,775.5 | 11.5 | 11.7 | -131.52 | 246.2 | 109.3 | 360.4 | 344.5 | 22.86 | 16.068 | | |
| 4,900.0 | 4,890.9 | 4,882.4 | 4,872.4 | 11.7 | 12.0 | -131.55 | 251.4 | 112.3 | 367.3 | 346.1 | 23.53 | 15.709 | | |
| 5,000.0 | 4,990.9 | 5,001.0 | 4,990.9 | 11.9 | 12.2 | -21.56 | 253.1 | 113.3 | 369.6 | 346.1 | 23.53 | 15.709 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-2304B - HZ - Plan #1 | | | | | | | | | | | | | Offset Site Error: 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|---|-----------------|------------------------------|-------------------------------|------------------------------|----------------------|-----------------------------|
| Survey Program: 0-ISCSWA MWD | | | | | | | | | | | | | Offset Well Error: 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | Total Uncertainty Axis | Separation Factor | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | |
| 5,100.0 | 5,090.9 | 5,101.0 | 5,090.9 | 12.1 | 12.3 | -21.56 | 253.1 | 113.3 | 369.6 | 345.7 | 23.90 | 15.464 | |
| 5,163.2 | 5,154.1 | 5,164.2 | 5,154.1 | 12.2 | 12.5 | -21.56 | 253.1 | 113.3 | 369.6 | 345.5 | 24.16 | 15.302 | |
| 5,200.0 | 5,190.9 | 5,187.4 | 5,177.4 | 12.3 | 12.5 | -174.00 | 253.6 | 113.4 | 371.6 | 347.7 | 23.93 | 15.528 | |
| 5,250.0 | 5,240.5 | 5,218.4 | 5,208.2 | 12.4 | 12.6 | -173.75 | 255.9 | 113.9 | 380.5 | 356.6 | 23.86 | 15.946 | |
| 5,300.0 | 5,289.3 | 5,250.0 | 5,239.5 | 12.6 | 12.7 | -173.28 | 260.0 | 115.0 | 396.3 | 372.7 | 23.60 | 16.791 | |
| 5,350.0 | 5,336.9 | 5,274.9 | 5,264.0 | 12.8 | 12.8 | -172.68 | 264.5 | 116.1 | 418.6 | 395.4 | 23.14 | 18.089 | |
| 5,400.0 | 5,382.8 | 5,300.0 | 5,288.4 | 13.0 | 12.9 | -171.85 | 270.2 | 117.5 | 446.7 | 424.2 | 22.49 | 19.862 | |
| 5,450.0 | 5,426.6 | 5,320.6 | 5,308.2 | 13.3 | 13.0 | -170.82 | 275.7 | 118.8 | 480.1 | 458.4 | 21.66 | 22.161 | |
| 5,500.0 | 5,467.9 | 5,350.0 | 5,336.0 | 13.6 | 13.1 | -169.32 | 285.0 | 121.1 | 518.1 | 497.4 | 20.72 | 25.011 | |
| 5,550.0 | 5,506.3 | 5,350.0 | 5,336.0 | 13.9 | 13.1 | -167.70 | 285.0 | 121.1 | 559.4 | 539.8 | 19.59 | 28.559 | |
| 5,600.0 | 5,541.5 | 5,365.5 | 5,350.4 | 14.4 | 13.2 | -165.06 | 290.4 | 122.4 | 603.7 | 585.2 | 18.50 | 32.627 | |
| 5,650.0 | 5,573.1 | 5,374.4 | 5,358.7 | 14.8 | 13.2 | -160.90 | 293.8 | 123.3 | 650.4 | 632.7 | 17.66 | 36.830 | |
| 5,700.0 | 5,600.8 | 5,380.6 | 5,364.4 | 15.3 | 13.2 | -153.18 | 296.2 | 123.8 | 698.6 | 680.8 | 17.82 | 39.203 | |
| 5,750.0 | 5,624.4 | 5,384.4 | 5,367.8 | 15.9 | 13.3 | -135.09 | 297.6 | 124.2 | 747.9 | 726.4 | 21.51 | 34.776 | |
| 5,800.0 | 5,643.7 | 5,385.9 | 5,369.2 | 16.5 | 13.3 | -86.99 | 298.2 | 124.4 | 797.6 | 768.9 | 28.66 | 27.826 | |
| 5,850.0 | 5,658.5 | 5,385.3 | 5,368.6 | 17.2 | 13.3 | -39.75 | 298.0 | 124.3 | 847.4 | 826.6 | 20.80 | 40.741 | |
| 5,900.0 | 5,668.6 | 5,382.9 | 5,366.4 | 17.9 | 13.3 | -22.12 | 297.0 | 124.1 | 896.7 | 882.1 | 14.55 | 61.621 | |
| 5,950.0 | 5,674.0 | 5,378.7 | 5,362.6 | 18.7 | 13.2 | -14.60 | 295.4 | 123.7 | 945.2 | 933.6 | 11.58 | 81.588 | |
| 5,981.4 | 5,675.0 | 5,375.3 | 5,359.5 | 19.1 | 13.2 | -11.84 | 294.1 | 123.3 | 975.0 | 964.4 | 10.60 | 92.006 | |
| 6,000.0 | 5,675.0 | 5,373.2 | 5,357.6 | 19.4 | 13.2 | -10.10 | 293.3 | 123.1 | 992.6 | 982.5 | 10.11 | 98.176 | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3501A - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------------|-------------------------------|------------------------------|----------------------|---------|-----------|--------------------|----------|
| Survey Program: 0-ISCSWA MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | Between Centres (usft) | Between Ellipses (usft) | | | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -54.00 | 73.2 | -100.8 | 124.6 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -54.00 | 73.2 | -100.8 | 124.6 | 124.4 | 0.19 | 663.672 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -54.00 | 73.2 | -100.8 | 124.6 | 123.9 | 0.64 | 195.473 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -54.00 | 73.2 | -100.8 | 124.6 | 123.5 | 1.09 | 114.616 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -54.00 | 73.2 | -100.8 | 124.6 | 123.0 | 1.54 | 81.078 | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -54.00 | 73.2 | -100.8 | 124.6 | 122.6 | 1.99 | 62.724 | | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -54.00 | 73.2 | -100.8 | 124.6 | 122.1 | 2.44 | 51.146 | | |
| 700.0 | 700.0 | 700.0 | 700.0 | 1.4 | 1.4 | -54.00 | 73.2 | -100.8 | 124.6 | 121.7 | 2.88 | 43.176 | | |
| 800.0 | 800.0 | 800.0 | 800.0 | 1.7 | 1.7 | -54.00 | 73.2 | -100.8 | 124.6 | 121.2 | 3.33 | 37.355 | | |
| 900.0 | 900.0 | 900.1 | 900.1 | 1.9 | 1.9 | -54.81 | 71.8 | -101.8 | 124.5 | 120.8 | 3.76 | 33.121 | | |
| 945.4 | 945.4 | 945.5 | 945.4 | 2.0 | 2.0 | -55.70 | 70.2 | -102.9 | 124.5 | 120.6 | 3.95 | 31.551 CC | | |
| 1,000.0 | 1,000.0 | 999.9 | 999.8 | 2.1 | 2.1 | -57.21 | 67.5 | -104.7 | 124.5 | 120.4 | 4.17 | 29.865 ES | | |
| 1,100.0 | 1,100.0 | 1,099.6 | 1,099.2 | 2.3 | 2.3 | -170.52 | 61.7 | -108.6 | 126.6 | 122.1 | 4.57 | 27.697 | | |
| 1,200.0 | 1,199.8 | 1,199.2 | 1,198.5 | 2.5 | 2.5 | -173.88 | 56.0 | -112.5 | 132.6 | 127.7 | 4.97 | 26.681 | | |
| 1,300.0 | 1,299.6 | 1,298.6 | 1,297.7 | 2.7 | 2.7 | -176.98 | 50.2 | -116.4 | 140.8 | 135.4 | 5.39 | 26.139 | | |
| 1,400.0 | 1,399.4 | 1,397.9 | 1,396.8 | 2.9 | 2.9 | -179.74 | 44.5 | -120.3 | 149.3 | 143.5 | 5.81 | 25.688 | | |
| 1,500.0 | 1,499.1 | 1,497.3 | 1,496.0 | 3.2 | 3.1 | 177.80 | 38.8 | -124.3 | 158.1 | 151.8 | 6.25 | 25.313 | | |
| 1,600.0 | 1,598.9 | 1,596.7 | 1,595.1 | 3.4 | 3.4 | 175.60 | 33.1 | -128.2 | 167.2 | 160.5 | 6.69 | 25.000 | | |
| 1,700.0 | 1,698.6 | 1,696.1 | 1,694.3 | 3.6 | 3.6 | 173.63 | 27.3 | -132.1 | 176.4 | 169.3 | 7.13 | 24.737 | | |
| 1,800.0 | 1,798.4 | 1,795.5 | 1,793.4 | 3.9 | 3.9 | 171.86 | 21.6 | -136.0 | 185.9 | 178.3 | 7.58 | 24.515 | | |
| 1,900.0 | 1,898.1 | 1,894.9 | 1,892.6 | 4.1 | 4.1 | 170.26 | 15.9 | -139.9 | 195.6 | 187.5 | 8.04 | 24.327 | | |
| 2,000.0 | 1,997.9 | 1,994.3 | 1,991.7 | 4.4 | 4.4 | 168.81 | 10.1 | -143.8 | 205.3 | 196.8 | 8.50 | 24.165 | | |
| 2,100.0 | 2,097.6 | 2,093.7 | 2,090.9 | 4.6 | 4.6 | 167.50 | 4.4 | -147.7 | 215.2 | 206.3 | 8.96 | 24.026 | | |
| 2,200.0 | 2,197.4 | 2,193.1 | 2,190.0 | 4.8 | 4.9 | 166.30 | -1.3 | -151.6 | 225.2 | 215.8 | 9.42 | 23.905 | | |
| 2,300.0 | 2,297.2 | 2,292.5 | 2,289.2 | 5.1 | 5.1 | 165.20 | -7.0 | -155.5 | 235.3 | 225.4 | 9.89 | 23.799 | | |
| 2,400.0 | 2,396.9 | 2,391.9 | 2,388.3 | 5.3 | 5.4 | 164.19 | -12.8 | -159.4 | 245.5 | 235.1 | 10.35 | 23.706 | | |
| 2,500.0 | 2,496.7 | 2,491.3 | 2,487.5 | 5.6 | 5.6 | 163.27 | -18.5 | -163.3 | 255.7 | 244.9 | 10.82 | 23.624 | | |
| 2,600.0 | 2,596.4 | 2,590.7 | 2,586.6 | 5.8 | 5.9 | 162.41 | -24.2 | -167.2 | 266.0 | 254.7 | 11.29 | 23.552 | | |
| 2,700.0 | 2,696.2 | 2,690.1 | 2,685.8 | 6.1 | 6.1 | 161.62 | -29.9 | -171.1 | 276.3 | 264.6 | 11.77 | 23.487 | | |
| 2,800.0 | 2,795.9 | 2,789.5 | 2,784.9 | 6.4 | 6.4 | 160.88 | -35.7 | -175.0 | 286.7 | 274.5 | 12.24 | 23.430 | | |
| 2,900.0 | 2,895.7 | 2,888.8 | 2,884.1 | 6.6 | 6.6 | 160.20 | -41.4 | -179.0 | 297.2 | 284.5 | 12.71 | 23.378 | | |
| 3,000.0 | 2,995.5 | 2,988.2 | 2,983.2 | 6.9 | 6.9 | 159.56 | -47.1 | -182.9 | 307.7 | 294.5 | 13.19 | 23.331 | | |
| 3,100.0 | 3,095.2 | 3,087.6 | 3,082.4 | 7.1 | 7.2 | 158.97 | -52.9 | -186.8 | 318.2 | 304.5 | 13.66 | 23.288 | | |
| 3,200.0 | 3,195.0 | 3,187.0 | 3,181.5 | 7.4 | 7.4 | 158.41 | -58.6 | -190.7 | 328.7 | 314.6 | 14.14 | 23.250 | | |
| 3,300.0 | 3,294.7 | 3,286.4 | 3,280.7 | 7.6 | 7.7 | 157.89 | -64.3 | -194.6 | 339.3 | 324.7 | 14.62 | 23.215 | | |
| 3,400.0 | 3,394.5 | 3,385.8 | 3,379.8 | 7.9 | 7.9 | 157.40 | -70.0 | -198.5 | 349.9 | 334.8 | 15.09 | 23.183 | | |
| 3,500.0 | 3,494.2 | 3,485.2 | 3,479.0 | 8.1 | 8.2 | 156.94 | -75.8 | -202.4 | 360.5 | 344.9 | 15.57 | 23.153 | | |
| 3,600.0 | 3,594.0 | 3,584.6 | 3,578.1 | 8.4 | 8.5 | 156.50 | -81.5 | -206.3 | 371.2 | 355.1 | 16.05 | 23.126 | | |
| 3,700.0 | 3,693.7 | 3,684.0 | 3,677.3 | 8.7 | 8.7 | 156.09 | -87.2 | -210.2 | 381.8 | 365.3 | 16.53 | 23.101 | | |
| 3,800.0 | 3,793.5 | 3,783.4 | 3,776.4 | 8.9 | 9.0 | 155.70 | -92.9 | -214.1 | 392.5 | 375.5 | 17.01 | 23.078 | | |
| 3,900.0 | 3,893.3 | 3,882.8 | 3,875.6 | 9.2 | 9.2 | 155.34 | -98.7 | -218.0 | 403.2 | 385.7 | 17.49 | 23.057 | | |
| 4,000.0 | 3,993.0 | 3,982.2 | 3,974.7 | 9.4 | 9.5 | 154.99 | -104.4 | -221.9 | 413.9 | 396.0 | 17.97 | 23.037 | | |
| 4,100.0 | 4,092.8 | 4,081.6 | 4,073.9 | 9.7 | 9.8 | 154.66 | -110.1 | -225.8 | 424.7 | 406.2 | 18.45 | 23.019 | | |
| 4,200.0 | 4,192.5 | 4,181.0 | 4,173.0 | 10.0 | 10.0 | 154.34 | -115.9 | -229.7 | 435.4 | 416.5 | 18.93 | 23.002 | | |
| 4,300.0 | 4,292.3 | 4,280.4 | 4,272.2 | 10.2 | 10.3 | 154.04 | -121.6 | -233.7 | 446.2 | 426.8 | 19.41 | 22.986 | | |
| 4,400.0 | 4,392.0 | 4,379.7 | 4,371.4 | 10.5 | 10.5 | 153.75 | -127.3 | -237.6 | 456.9 | 437.0 | 19.89 | 22.971 | | |
| 4,500.0 | 4,491.8 | 4,479.1 | 4,470.5 | 10.7 | 10.8 | 153.48 | -133.0 | -241.5 | 467.7 | 447.3 | 20.37 | 22.957 | | |
| 4,600.0 | 4,591.6 | 4,578.5 | 4,569.7 | 11.0 | 11.1 | 153.22 | -138.8 | -245.4 | 478.5 | 457.7 | 20.86 | 22.944 | | |
| 4,700.0 | 4,691.3 | 4,677.9 | 4,668.8 | 11.2 | 11.3 | 152.97 | -144.5 | -249.3 | 489.3 | 468.0 | 21.34 | 22.932 | | |
| 4,800.0 | 4,791.1 | 4,787.4 | 4,778.1 | 11.5 | 11.6 | 152.83 | -149.7 | -252.8 | 499.3 | 477.5 | 21.81 | 22.919 | | |
| 4,900.0 | 4,890.9 | 4,890.3 | 4,890.9 | 11.7 | 11.8 | 153.00 | -151.5 | -254.1 | 505.3 | 483.0 | 22.26 | 22.694 | | |
| 5,000.0 | 4,990.9 | 5,000.2 | 4,990.9 | 11.9 | 12.0 | -96.90 | -151.5 | -254.1 | 506.8 | 483.8 | 23.00 | 22.035 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3501A - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|----------|
| Survey Program: | | 0-ISCWSA MWD | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | Separation Factor | | |
| 5,055.7 | 5,046.6 | 5,056.0 | 5,046.6 | 12.0 | 12.1 | -96.90 | -151.5 | -254.1 | 506.8 | 483.6 | 23.21 | 21.842 | | |
| 5,100.0 | 5,090.9 | 5,096.7 | 5,087.3 | 12.1 | 12.1 | -96.95 | -152.0 | -254.1 | 506.9 | 483.6 | 23.37 | 21.694 | | |
| 5,163.2 | 5,154.1 | 5,150.0 | 5,140.4 | 12.2 | 12.3 | -97.49 | -156.8 | -254.4 | 508.0 | 484.3 | 23.63 | 21.497 | | |
| 5,200.0 | 5,190.9 | 5,180.9 | 5,170.9 | 12.3 | 12.4 | 109.37 | -162.2 | -254.7 | 509.6 | 486.2 | 23.45 | 21.735 | | |
| 5,250.0 | 5,240.5 | 5,222.2 | 5,210.9 | 12.4 | 12.5 | 108.33 | -172.0 | -255.2 | 514.0 | 490.3 | 23.70 | 21.689 | | |
| 5,300.0 | 5,289.3 | 5,262.8 | 5,249.5 | 12.6 | 12.7 | 107.13 | -184.8 | -255.9 | 520.7 | 496.7 | 23.97 | 21.719 | | |
| 5,350.0 | 5,336.9 | 5,300.0 | 5,283.8 | 12.8 | 12.9 | 105.79 | -199.1 | -256.7 | 529.7 | 505.4 | 24.27 | 21.822 | | |
| 5,400.0 | 5,382.8 | 5,342.2 | 5,321.4 | 13.0 | 13.1 | 104.25 | -218.3 | -257.7 | 540.8 | 516.2 | 24.66 | 21.932 | | |
| 5,450.0 | 5,426.6 | 5,380.9 | 5,354.4 | 13.3 | 13.4 | 102.60 | -238.4 | -258.8 | 553.9 | 528.8 | 25.09 | 22.075 | | |
| 5,500.0 | 5,467.9 | 5,418.9 | 5,385.2 | 13.6 | 13.6 | 100.84 | -260.6 | -260.0 | 568.9 | 543.3 | 25.60 | 22.222 | | |
| 5,550.0 | 5,506.3 | 5,456.3 | 5,413.9 | 13.9 | 13.9 | 98.97 | -284.4 | -261.3 | 585.6 | 559.4 | 26.19 | 22.360 | | |
| 5,600.0 | 5,541.5 | 5,493.0 | 5,440.4 | 14.4 | 14.2 | 97.01 | -309.8 | -262.7 | 603.7 | 576.8 | 26.86 | 22.479 | | |
| 5,650.0 | 5,573.1 | 5,529.1 | 5,464.6 | 14.8 | 14.5 | 94.97 | -336.6 | -264.1 | 623.1 | 595.5 | 27.61 | 22.570 | | |
| 5,700.0 | 5,600.8 | 5,564.7 | 5,486.6 | 15.3 | 14.9 | 92.89 | -364.6 | -265.6 | 643.7 | 615.2 | 28.51 | 22.581 | | |
| 5,750.0 | 5,624.4 | 5,600.0 | 5,506.4 | 15.9 | 15.2 | 90.77 | -393.7 | -267.2 | 665.2 | 635.7 | 29.47 | 22.573 | | |
| 5,800.0 | 5,643.7 | 5,634.6 | 5,523.9 | 16.5 | 15.6 | 88.63 | -423.5 | -268.8 | 687.5 | 657.0 | 30.49 | 22.549 | | |
| 5,850.0 | 5,658.5 | 5,669.2 | 5,539.4 | 17.2 | 16.0 | 86.50 | -454.3 | -270.5 | 710.3 | 678.8 | 31.54 | 22.520 | | |
| 5,900.0 | 5,668.6 | 5,700.0 | 5,551.4 | 17.9 | 16.4 | 84.32 | -482.7 | -272.0 | 733.6 | 701.0 | 32.58 | 22.514 | | |
| 5,950.0 | 5,674.0 | 5,737.8 | 5,563.9 | 18.7 | 16.9 | 82.36 | -518.3 | -273.9 | 757.2 | 723.4 | 33.72 | 22.455 | | |
| 5,981.4 | 5,675.0 | 5,759.4 | 5,569.8 | 19.1 | 17.1 | 81.11 | -539.0 | -275.1 | 772.0 | 737.6 | 34.42 | 22.432 | | |
| 6,000.0 | 5,675.0 | 5,772.3 | 5,573.0 | 19.4 | 17.3 | 81.49 | -551.6 | -275.7 | 780.8 | 745.8 | 34.91 | 22.363 | | |
| 6,100.0 | 5,675.0 | 5,845.4 | 5,584.8 | 20.8 | 18.3 | 83.01 | -623.5 | -279.6 | 826.4 | 788.9 | 37.55 | 22.010 | | |
| 6,200.0 | 5,675.0 | 5,955.0 | 5,587.0 | 22.2 | 19.8 | 83.73 | -733.0 | -284.6 | 868.5 | 827.9 | 40.58 | 21.403 | | |
| 6,300.0 | 5,675.0 | 6,068.4 | 5,587.0 | 23.8 | 21.4 | 84.12 | -846.3 | -285.0 | 901.9 | 858.0 | 43.81 | 20.584 | | |
| 6,400.0 | 5,675.0 | 6,164.3 | 5,587.0 | 25.3 | 22.9 | 84.39 | -942.2 | -285.0 | 930.0 | 883.0 | 46.99 | 19.791 | | |
| 6,500.0 | 5,675.0 | 6,261.5 | 5,587.0 | 26.8 | 24.5 | 84.59 | -1,039.5 | -285.0 | 953.2 | 902.9 | 50.21 | 18.984 | | |
| 6,600.0 | 5,675.0 | 6,359.9 | 5,587.0 | 28.4 | 26.1 | 84.74 | -1,137.8 | -285.0 | 971.2 | 917.8 | 53.42 | 18.182 | | |
| 6,700.0 | 5,675.0 | 6,459.0 | 5,587.0 | 29.9 | 27.8 | 84.85 | -1,236.9 | -285.0 | 984.1 | 927.5 | 56.57 | 17.396 | | |
| 6,800.0 | 5,675.0 | 6,558.7 | 5,587.0 | 31.4 | 29.5 | 84.91 | -1,336.6 | -285.0 | 991.8 | 932.2 | 59.63 | 16.631 | | |
| 6,898.1 | 5,675.0 | 6,656.8 | 5,587.0 | 32.9 | 31.3 | 84.93 | -1,434.7 | -285.0 | 994.3 | 931.8 | 62.52 | 15.904 | | |
| 6,900.0 | 5,675.0 | 6,658.7 | 5,587.0 | 32.9 | 31.3 | 84.93 | -1,436.6 | -285.0 | 994.3 | 931.7 | 62.58 | 15.888 | | |
| 7,000.0 | 5,675.0 | 6,758.7 | 5,587.0 | 34.5 | 33.0 | 84.93 | -1,536.6 | -285.0 | 994.3 | 928.3 | 65.99 | 15.067 | | |
| 7,100.0 | 5,675.0 | 6,858.7 | 5,587.0 | 36.0 | 34.8 | 84.92 | -1,636.6 | -285.0 | 994.3 | 924.8 | 69.44 | 14.318 | | |
| 7,200.0 | 5,675.0 | 6,958.7 | 5,587.0 | 37.6 | 36.6 | 84.92 | -1,736.6 | -285.0 | 994.3 | 921.3 | 72.93 | 13.633 | | |
| 7,300.0 | 5,675.0 | 7,058.7 | 5,587.0 | 39.2 | 38.4 | 84.92 | -1,836.6 | -285.0 | 994.2 | 917.8 | 76.45 | 13.005 | | |
| 7,400.0 | 5,675.0 | 7,158.7 | 5,587.0 | 40.9 | 40.2 | 84.92 | -1,936.6 | -285.0 | 994.2 | 914.2 | 80.00 | 12.428 | | |
| 7,500.0 | 5,675.0 | 7,258.7 | 5,587.0 | 42.6 | 42.1 | 84.92 | -2,036.6 | -284.9 | 994.2 | 910.6 | 83.57 | 11.896 | | |
| 7,600.0 | 5,675.0 | 7,358.7 | 5,587.0 | 44.2 | 43.9 | 84.92 | -2,136.6 | -284.9 | 994.2 | 907.0 | 87.17 | 11.405 | | |
| 7,700.0 | 5,675.0 | 7,458.7 | 5,587.0 | 45.9 | 45.7 | 84.92 | -2,236.6 | -284.9 | 994.2 | 903.4 | 90.78 | 10.951 | | |
| 7,800.0 | 5,675.0 | 7,558.7 | 5,587.0 | 47.7 | 47.6 | 84.92 | -2,336.6 | -284.9 | 994.2 | 899.8 | 94.42 | 10.530 | | |
| 7,900.0 | 5,675.0 | 7,658.7 | 5,587.0 | 49.4 | 49.4 | 84.92 | -2,436.6 | -284.9 | 994.2 | 896.1 | 98.06 | 10.138 | | |
| 8,000.0 | 5,675.0 | 7,758.7 | 5,587.0 | 51.1 | 51.3 | 84.92 | -2,536.6 | -284.9 | 994.2 | 892.4 | 101.72 | 9.774 | | |
| 8,100.0 | 5,675.0 | 7,858.7 | 5,587.0 | 52.9 | 53.2 | 84.92 | -2,636.6 | -284.9 | 994.1 | 888.8 | 105.39 | 9.433 | | |
| 8,200.0 | 5,675.0 | 7,958.7 | 5,587.0 | 54.7 | 55.0 | 84.92 | -2,736.6 | -284.9 | 994.1 | 885.1 | 109.07 | 9.115 | | |
| 8,300.0 | 5,675.0 | 8,058.7 | 5,587.0 | 56.5 | 56.9 | 84.92 | -2,836.6 | -284.9 | 994.1 | 881.4 | 112.76 | 8.816 | | |
| 8,400.0 | 5,675.0 | 8,158.7 | 5,587.0 | 58.2 | 58.8 | 84.92 | -2,936.6 | -284.9 | 994.1 | 877.6 | 116.46 | 8.536 | | |
| 8,500.0 | 5,675.0 | 8,258.7 | 5,587.0 | 60.0 | 60.6 | 84.92 | -3,036.6 | -284.9 | 994.1 | 873.9 | 120.17 | 8.273 | | |
| 8,600.0 | 5,675.0 | 8,358.7 | 5,587.0 | 61.8 | 62.5 | 84.92 | -3,136.6 | -284.9 | 994.1 | 870.2 | 123.88 | 8.025 | | |
| 8,700.0 | 5,675.0 | 8,458.7 | 5,587.0 | 63.6 | 64.4 | 84.92 | -3,236.6 | -284.8 | 994.1 | 866.5 | 127.60 | 7.791 | | |
| 8,800.0 | 5,675.0 | 8,558.7 | 5,587.0 | 65.5 | 66.3 | 84.92 | -3,336.6 | -284.8 | 994.1 | 862.7 | 131.33 | 7.569 | | |
| 8,900.0 | 5,675.0 | 8,658.7 | 5,587.0 | 67.3 | 68.2 | 84.92 | -3,436.6 | -284.8 | 994.0 | 859.0 | 135.06 | 7.360 | | |
| 9,000.0 | 5,675.0 | 8,758.7 | 5,587.0 | 69.1 | 70.0 | 84.92 | -3,536.6 | -284.8 | 994.0 | 855.2 | 138.79 | 7.162 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3501A - HZ - Plan #2 | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|---|-----------------|------------------------------|----------------------|---------|--------------------|----------|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Distance | | Total Uncertainty Axis | Separation Factor | Warning | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | | | | | |
| 9,100.0 | 5,675.0 | 8,858.7 | 5,587.0 | 70.9 | 71.9 | 84.92 | -3,636.6 | -284.8 | 994.0 | 851.5 | 142.53 | 6.974 | |
| 9,200.0 | 5,675.0 | 8,958.7 | 5,587.0 | 72.8 | 73.8 | 84.92 | -3,736.6 | -284.8 | 994.0 | 847.7 | 146.28 | 6.795 | |
| 9,300.0 | 5,675.0 | 9,058.7 | 5,587.0 | 74.6 | 75.7 | 84.92 | -3,836.6 | -284.8 | 994.0 | 844.0 | 150.03 | 6.625 | |
| 9,400.0 | 5,675.0 | 9,158.7 | 5,587.0 | 76.5 | 77.6 | 84.92 | -3,936.6 | -284.8 | 994.0 | 840.2 | 153.78 | 6.464 | |
| 9,500.0 | 5,675.0 | 9,258.7 | 5,587.0 | 78.3 | 79.5 | 84.92 | -4,036.6 | -284.8 | 994.0 | 836.4 | 157.54 | 6.309 | |
| 9,600.0 | 5,675.0 | 9,358.7 | 5,587.0 | 80.2 | 81.4 | 84.92 | -4,136.6 | -284.8 | 994.0 | 832.7 | 161.30 | 6.162 | |
| 9,700.0 | 5,675.0 | 9,458.7 | 5,587.0 | 82.0 | 83.3 | 84.92 | -4,236.6 | -284.8 | 994.0 | 828.9 | 165.06 | 6.022 | |
| 9,800.0 | 5,675.0 | 9,558.7 | 5,587.0 | 83.9 | 85.2 | 84.92 | -4,336.6 | -284.8 | 993.9 | 825.1 | 168.82 | 5.888 | |
| 9,900.0 | 5,675.0 | 9,658.7 | 5,587.0 | 85.7 | 87.1 | 84.92 | -4,436.6 | -284.8 | 993.9 | 821.3 | 172.59 | 5.759 | |
| 10,000.0 | 5,675.0 | 9,758.7 | 5,587.0 | 87.6 | 89.0 | 84.92 | -4,536.6 | -284.7 | 993.9 | 817.6 | 176.36 | 5.636 | |
| 10,100.0 | 5,675.0 | 9,858.7 | 5,587.0 | 89.4 | 90.9 | 84.92 | -4,636.6 | -284.7 | 993.9 | 813.8 | 180.13 | 5.518 | |
| 10,200.0 | 5,675.0 | 9,958.7 | 5,587.0 | 91.3 | 92.8 | 84.92 | -4,736.6 | -284.7 | 993.9 | 810.0 | 183.90 | 5.404 | |
| 10,300.0 | 5,675.0 | 10,058.7 | 5,587.0 | 93.2 | 94.7 | 84.92 | -4,836.6 | -284.7 | 993.9 | 806.2 | 187.68 | 5.296 | |
| 10,400.0 | 5,675.0 | 10,158.7 | 5,587.0 | 95.1 | 96.6 | 84.92 | -4,936.6 | -284.7 | 993.9 | 802.4 | 191.46 | 5.191 | |
| 10,500.0 | 5,675.0 | 10,258.7 | 5,587.0 | 96.9 | 98.5 | 84.92 | -5,036.6 | -284.7 | 993.9 | 798.6 | 195.23 | 5.091 | |
| 10,600.0 | 5,675.0 | 10,358.7 | 5,587.0 | 98.8 | 100.4 | 84.92 | -5,136.6 | -284.7 | 993.8 | 794.8 | 199.01 | 4.994 | |
| 10,700.0 | 5,675.0 | 10,458.7 | 5,587.0 | 100.7 | 102.3 | 84.92 | -5,236.6 | -284.7 | 993.8 | 791.0 | 202.80 | 4.901 | |
| 10,800.0 | 5,675.0 | 10,558.7 | 5,587.0 | 102.5 | 104.2 | 84.92 | -5,336.6 | -284.7 | 993.8 | 787.2 | 206.58 | 4.811 | |
| 10,900.0 | 5,675.0 | 10,658.7 | 5,587.0 | 104.4 | 106.1 | 84.92 | -5,436.6 | -284.7 | 993.8 | 783.4 | 210.36 | 4.724 | |
| 11,000.0 | 5,675.0 | 10,758.7 | 5,587.0 | 106.3 | 108.0 | 84.92 | -5,536.6 | -284.7 | 993.8 | 779.6 | 214.15 | 4.641 | |
| 11,100.0 | 5,675.0 | 10,858.7 | 5,587.0 | 108.2 | 109.9 | 84.92 | -5,636.6 | -284.7 | 993.8 | 775.8 | 217.94 | 4.560 | |
| 11,200.0 | 5,675.0 | 10,958.7 | 5,587.0 | 110.1 | 111.8 | 84.92 | -5,736.6 | -284.6 | 993.8 | 772.0 | 221.73 | 4.482 | |
| 11,300.0 | 5,675.0 | 11,058.7 | 5,587.0 | 111.9 | 113.7 | 84.92 | -5,836.6 | -284.6 | 993.8 | 768.2 | 225.52 | 4.407 | |
| 11,400.0 | 5,675.0 | 11,158.7 | 5,587.0 | 113.8 | 115.6 | 84.92 | -5,936.6 | -284.6 | 993.7 | 764.4 | 229.31 | 4.334 | |
| 11,500.0 | 5,675.0 | 11,258.7 | 5,587.0 | 115.7 | 117.5 | 84.92 | -6,036.6 | -284.6 | 993.7 | 760.6 | 233.10 | 4.263 | |
| 11,600.0 | 5,675.0 | 11,358.7 | 5,587.0 | 117.6 | 119.4 | 84.92 | -6,136.6 | -284.6 | 993.7 | 756.8 | 236.89 | 4.195 | |
| 11,700.0 | 5,675.0 | 11,458.7 | 5,587.0 | 119.5 | 121.3 | 84.92 | -6,236.6 | -284.6 | 993.7 | 753.0 | 240.68 | 4.129 | |
| 11,800.0 | 5,675.0 | 11,558.7 | 5,587.0 | 121.4 | 123.2 | 84.92 | -6,336.6 | -284.6 | 993.7 | 749.2 | 244.48 | 4.065 | |
| 11,900.0 | 5,675.0 | 11,658.7 | 5,587.0 | 123.3 | 125.1 | 84.92 | -6,436.6 | -284.6 | 993.7 | 745.4 | 248.27 | 4.002 | |
| 12,000.0 | 5,675.0 | 11,758.7 | 5,587.0 | 125.2 | 127.0 | 84.92 | -6,536.6 | -284.6 | 993.7 | 741.6 | 252.07 | 3.942 | |
| 12,100.0 | 5,675.0 | 11,858.7 | 5,587.0 | 127.1 | 128.9 | 84.92 | -6,636.6 | -284.6 | 993.7 | 737.8 | 255.87 | 3.884 | |
| 12,200.0 | 5,675.0 | 11,958.7 | 5,587.0 | 128.9 | 130.8 | 84.92 | -6,736.6 | -284.6 | 993.7 | 734.0 | 259.66 | 3.827 | |
| 12,300.0 | 5,675.0 | 12,058.7 | 5,587.0 | 130.8 | 132.8 | 84.92 | -6,836.6 | -284.6 | 993.6 | 730.2 | 263.46 | 3.771 | |
| 12,400.0 | 5,675.0 | 12,158.7 | 5,587.0 | 132.7 | 134.7 | 84.92 | -6,936.6 | -284.6 | 993.6 | 726.4 | 267.26 | 3.718 | |
| 12,429.3 | 5,675.0 | 12,187.9 | 5,587.0 | 133.3 | 135.2 | 84.92 | -6,965.8 | -284.6 | 993.6 | 725.3 | 268.37 | 3.702 SF | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3502B - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: 0.0 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|-----------------------------|---------|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | | | Offset Well Error: 0.0 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | Separation Factor | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -91.05 | -1.2 | -66.2 | 66.2 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -91.05 | -1.2 | -66.2 | 66.2 | 66.0 | 0.19 | 352.530 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -91.05 | -1.2 | -66.2 | 66.2 | 65.5 | 0.64 | 103.832 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -91.05 | -1.2 | -66.2 | 66.2 | 65.1 | 1.09 | 60.882 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -91.05 | -1.2 | -66.2 | 66.2 | 64.6 | 1.54 | 43.067 | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -91.05 | -1.2 | -66.2 | 66.2 | 64.2 | 1.99 | 33.318 | | |
| 600.0 | 600.0 | 600.0 | 600.0 | 1.2 | 1.2 | -91.05 | -1.2 | -66.2 | 66.2 | 63.7 | 2.44 | 27.168 | | |
| 700.0 | 700.0 | 700.0 | 700.0 | 1.4 | 1.4 | -91.05 | -1.2 | -66.2 | 66.2 | 63.3 | 2.88 | 22.934 | | |
| 800.0 | 800.0 | 800.0 | 800.0 | 1.7 | 1.7 | -91.05 | -1.2 | -66.2 | 66.2 | 62.8 | 3.33 | 19.842 | | |
| 900.0 | 900.0 | 900.0 | 900.0 | 1.9 | 1.9 | -91.05 | -1.2 | -66.2 | 66.2 | 62.4 | 3.78 | 17.485 | | |
| 1,000.0 | 1,000.0 | 1,000.0 | 1,000.0 | 2.1 | 2.1 | -91.05 | -1.2 | -66.2 | 66.2 | 61.9 | 4.23 | 15.629 CC, ES | | |
| 1,100.0 | 1,100.0 | 1,100.0 | 1,100.0 | 2.3 | 2.3 | 159.47 | -1.2 | -66.2 | 67.8 | 63.1 | 4.66 | 14.538 | | |
| 1,200.0 | 1,199.8 | 1,200.9 | 1,200.9 | 2.5 | 2.5 | 159.63 | -2.8 | -65.4 | 72.0 | 66.9 | 5.05 | 14.248 | | |
| 1,300.0 | 1,299.6 | 1,301.9 | 1,301.7 | 2.7 | 2.7 | 157.84 | -7.6 | -63.1 | 76.3 | 70.9 | 5.43 | 14.058 | | |
| 1,400.0 | 1,399.4 | 1,401.7 | 1,401.3 | 2.9 | 2.9 | 155.14 | -13.9 | -60.1 | 80.1 | 74.2 | 5.82 | 13.755 | | |
| 1,500.0 | 1,499.1 | 1,501.6 | 1,500.9 | 3.2 | 3.1 | 152.69 | -20.2 | -57.1 | 84.0 | 77.8 | 6.23 | 13.479 | | |
| 1,600.0 | 1,598.9 | 1,601.5 | 1,600.6 | 3.4 | 3.3 | 150.46 | -26.5 | -54.1 | 88.1 | 81.4 | 6.66 | 13.230 | | |
| 1,700.0 | 1,698.6 | 1,701.3 | 1,700.2 | 3.6 | 3.5 | 148.43 | -32.8 | -51.1 | 92.3 | 85.2 | 7.10 | 13.005 | | |
| 1,800.0 | 1,798.4 | 1,801.2 | 1,799.8 | 3.9 | 3.8 | 146.58 | -39.1 | -48.1 | 96.6 | 89.1 | 7.55 | 12.803 | | |
| 1,900.0 | 1,898.1 | 1,901.0 | 1,899.4 | 4.1 | 4.0 | 144.89 | -45.4 | -45.1 | 101.0 | 93.0 | 8.00 | 12.622 | | |
| 2,000.0 | 1,997.9 | 2,000.9 | 1,999.0 | 4.4 | 4.2 | 143.34 | -51.6 | -42.1 | 105.5 | 97.0 | 8.47 | 12.458 | | |
| 2,100.0 | 2,097.6 | 2,100.8 | 2,098.6 | 4.6 | 4.5 | 141.92 | -57.9 | -39.1 | 110.1 | 101.1 | 8.94 | 12.311 | | |
| 2,200.0 | 2,197.4 | 2,200.6 | 2,198.3 | 4.8 | 4.7 | 140.61 | -64.2 | -36.1 | 114.7 | 105.3 | 9.42 | 12.178 | | |
| 2,300.0 | 2,297.2 | 2,300.5 | 2,297.9 | 5.1 | 4.9 | 139.41 | -70.5 | -33.1 | 119.4 | 109.5 | 9.90 | 12.058 | | |
| 2,400.0 | 2,396.9 | 2,400.3 | 2,397.5 | 5.3 | 5.2 | 138.29 | -76.8 | -30.1 | 124.1 | 113.7 | 10.38 | 11.949 | | |
| 2,500.0 | 2,496.7 | 2,500.2 | 2,497.1 | 5.6 | 5.4 | 137.26 | -83.1 | -27.1 | 128.8 | 118.0 | 10.87 | 11.850 | | |
| 2,600.0 | 2,596.4 | 2,600.1 | 2,596.7 | 5.8 | 5.7 | 136.30 | -89.4 | -24.1 | 133.6 | 122.3 | 11.36 | 11.760 | | |
| 2,700.0 | 2,696.2 | 2,699.9 | 2,696.3 | 6.1 | 5.9 | 135.41 | -95.7 | -21.1 | 138.5 | 126.6 | 11.86 | 11.677 | | |
| 2,800.0 | 2,795.9 | 2,799.8 | 2,796.0 | 6.4 | 6.2 | 134.58 | -101.9 | -18.1 | 143.4 | 131.0 | 12.36 | 11.602 | | |
| 2,900.0 | 2,895.7 | 2,899.6 | 2,895.6 | 6.6 | 6.4 | 133.80 | -108.2 | -15.1 | 148.2 | 135.4 | 12.85 | 11.533 | | |
| 3,000.0 | 2,995.5 | 2,999.5 | 2,995.2 | 6.9 | 6.7 | 133.07 | -114.5 | -12.1 | 153.2 | 139.8 | 13.35 | 11.470 | | |
| 3,100.0 | 3,095.2 | 3,099.4 | 3,094.8 | 7.1 | 6.9 | 132.39 | -120.8 | -9.1 | 158.1 | 144.3 | 13.86 | 11.412 | | |
| 3,200.0 | 3,195.0 | 3,199.2 | 3,194.4 | 7.4 | 7.2 | 131.75 | -127.1 | -6.1 | 163.1 | 148.7 | 14.36 | 11.358 | | |
| 3,300.0 | 3,294.7 | 3,299.1 | 3,294.1 | 7.6 | 7.4 | 131.15 | -133.4 | -3.1 | 168.1 | 153.2 | 14.86 | 11.308 | | |
| 3,400.0 | 3,394.5 | 3,398.9 | 3,393.7 | 7.9 | 7.7 | 130.58 | -139.7 | -0.1 | 173.1 | 157.7 | 15.37 | 11.261 | | |
| 3,500.0 | 3,494.2 | 3,498.8 | 3,493.3 | 8.1 | 8.0 | 130.05 | -146.0 | 2.9 | 178.1 | 162.2 | 15.88 | 11.218 | | |
| 3,600.0 | 3,594.0 | 3,598.7 | 3,592.9 | 8.4 | 8.2 | 129.54 | -152.2 | 5.9 | 183.1 | 166.7 | 16.38 | 11.178 | | |
| 3,700.0 | 3,693.7 | 3,698.5 | 3,692.5 | 8.7 | 8.5 | 129.06 | -158.5 | 8.9 | 188.2 | 171.3 | 16.89 | 11.141 | | |
| 3,800.0 | 3,793.5 | 3,798.4 | 3,792.1 | 8.9 | 8.7 | 128.61 | -164.8 | 11.9 | 193.2 | 175.8 | 17.40 | 11.106 | | |
| 3,900.0 | 3,893.3 | 3,898.2 | 3,891.8 | 9.2 | 9.0 | 128.18 | -171.1 | 14.9 | 198.3 | 180.4 | 17.91 | 11.074 | | |
| 4,000.0 | 3,993.0 | 3,998.1 | 3,991.4 | 9.4 | 9.2 | 127.77 | -177.4 | 17.9 | 203.4 | 185.0 | 18.42 | 11.043 | | |
| 4,100.0 | 4,092.8 | 4,098.0 | 4,091.0 | 9.7 | 9.5 | 127.38 | -183.7 | 20.9 | 208.5 | 189.6 | 18.93 | 11.014 | | |
| 4,200.0 | 4,192.5 | 4,197.8 | 4,190.6 | 10.0 | 9.8 | 127.01 | -190.0 | 23.9 | 213.6 | 194.1 | 19.44 | 10.987 | | |
| 4,300.0 | 4,292.3 | 4,297.7 | 4,290.2 | 10.2 | 10.0 | 126.65 | -196.3 | 26.9 | 218.7 | 198.7 | 19.95 | 10.962 | | |
| 4,400.0 | 4,392.0 | 4,397.5 | 4,389.8 | 10.5 | 10.3 | 126.32 | -202.5 | 29.9 | 223.8 | 203.4 | 20.46 | 10.938 | | |
| 4,500.0 | 4,491.8 | 4,497.4 | 4,489.5 | 10.7 | 10.5 | 125.99 | -208.8 | 32.9 | 228.9 | 208.0 | 20.97 | 10.915 | | |
| 4,600.0 | 4,591.6 | 4,597.3 | 4,589.1 | 11.0 | 10.8 | 125.68 | -215.1 | 35.9 | 234.1 | 212.6 | 21.49 | 10.894 | | |
| 4,700.0 | 4,691.3 | 4,697.1 | 4,688.7 | 11.2 | 11.1 | 125.39 | -221.4 | 38.9 | 239.2 | 217.2 | 22.00 | 10.874 | | |
| 4,800.0 | 4,791.1 | 4,797.0 | 4,788.3 | 11.5 | 11.3 | 125.11 | -227.7 | 41.9 | 244.4 | 221.8 | 22.51 | 10.855 | | |
| 4,900.0 | 4,890.9 | 4,896.3 | 4,889.5 | 11.7 | 11.5 | 124.94 | -232.5 | 44.2 | 248.2 | 225.3 | 22.96 | 10.811 | | |
| 5,000.0 | 4,990.9 | 4,996.8 | 4,990.9 | 11.9 | 11.7 | -125.11 | -234.2 | 45.0 | 249.5 | 226.6 | 22.94 | 10.877 | | |
| 5,100.0 | 5,090.9 | 5,096.8 | 5,090.9 | 12.1 | 11.9 | -125.11 | -234.2 | 45.0 | 249.5 | 226.2 | 23.32 | 10.699 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3502B - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: 0.0 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|-----------------------------|--|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | | | Offset Well Error: 0.0 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | Separation Factor | | |
| 5,163.2 | 5,154.1 | 5,163.0 | 5,154.1 | 12.2 | 12.0 | -125.11 | -234.2 | 45.0 | 249.5 | 226.0 | 23.55 | 10.595 | | |
| 5,200.0 | 5,190.9 | 5,191.8 | 5,182.9 | 12.3 | 12.1 | 82.43 | -235.0 | 45.0 | 249.9 | 225.9 | 24.07 | 10.383 | | |
| 5,250.0 | 5,240.5 | 5,231.0 | 5,221.9 | 12.4 | 12.2 | 82.59 | -238.6 | 45.0 | 251.8 | 227.5 | 24.30 | 10.362 | | |
| 5,300.0 | 5,289.3 | 5,270.0 | 5,260.4 | 12.6 | 12.3 | 82.87 | -245.1 | 45.0 | 255.3 | 230.7 | 24.58 | 10.384 | | |
| 5,350.0 | 5,336.9 | 5,309.0 | 5,298.2 | 12.8 | 12.5 | 83.25 | -254.5 | 45.0 | 260.2 | 235.3 | 24.91 | 10.448 | | |
| 5,400.0 | 5,382.8 | 5,350.0 | 5,337.2 | 13.0 | 12.6 | 83.77 | -267.4 | 45.0 | 266.8 | 241.5 | 25.30 | 10.545 | | |
| 5,450.0 | 5,426.6 | 5,386.3 | 5,370.7 | 13.3 | 12.8 | 84.17 | -281.3 | 45.0 | 274.9 | 249.1 | 25.74 | 10.680 | | |
| 5,500.0 | 5,467.9 | 5,424.7 | 5,404.9 | 13.6 | 13.0 | 84.65 | -298.5 | 45.0 | 284.5 | 258.3 | 26.25 | 10.840 | | |
| 5,550.0 | 5,506.3 | 5,462.8 | 5,437.7 | 13.9 | 13.3 | 85.09 | -318.1 | 45.0 | 295.7 | 268.9 | 26.83 | 11.020 | | |
| 5,600.0 | 5,541.5 | 5,500.0 | 5,468.1 | 14.4 | 13.5 | 85.43 | -339.5 | 45.0 | 308.4 | 280.8 | 27.54 | 11.197 | | |
| 5,650.0 | 5,573.1 | 5,538.4 | 5,497.9 | 14.8 | 13.8 | 85.76 | -363.7 | 45.0 | 322.5 | 294.2 | 28.35 | 11.375 | | |
| 5,700.0 | 5,600.8 | 5,576.0 | 5,525.2 | 15.3 | 14.1 | 85.95 | -389.5 | 45.0 | 338.0 | 308.8 | 29.25 | 11.557 | | |
| 5,750.0 | 5,624.4 | 5,613.5 | 5,550.5 | 15.9 | 14.5 | 86.03 | -417.1 | 45.0 | 354.8 | 324.6 | 30.23 | 11.737 | | |
| 5,800.0 | 5,643.7 | 5,650.0 | 5,573.2 | 16.5 | 14.8 | 85.94 | -445.8 | 45.0 | 372.8 | 341.5 | 31.28 | 11.919 | | |
| 5,850.0 | 5,658.5 | 5,688.4 | 5,594.9 | 17.2 | 15.2 | 85.84 | -477.5 | 45.0 | 391.9 | 359.5 | 32.43 | 12.085 | | |
| 5,900.0 | 5,668.6 | 5,726.1 | 5,613.8 | 17.9 | 15.6 | 85.58 | -510.0 | 45.0 | 411.9 | 378.3 | 33.63 | 12.248 | | |
| 5,950.0 | 5,674.0 | 5,764.1 | 5,630.4 | 18.7 | 16.1 | 85.22 | -544.2 | 45.0 | 432.8 | 397.9 | 34.88 | 12.406 | | |
| 5,981.4 | 5,675.0 | 5,788.1 | 5,639.6 | 19.1 | 16.4 | 84.96 | -566.4 | 45.0 | 446.2 | 410.5 | 35.69 | 12.502 | | |
| 6,000.0 | 5,675.0 | 5,802.7 | 5,644.7 | 19.4 | 16.6 | 85.77 | -580.0 | 45.0 | 454.3 | 418.1 | 36.21 | 12.546 | | |
| 6,100.0 | 5,675.0 | 5,886.7 | 5,666.4 | 20.8 | 17.7 | 88.92 | -661.1 | 45.0 | 496.2 | 457.3 | 38.91 | 12.752 | | |
| 6,200.0 | 5,675.0 | 5,978.1 | 5,675.0 | 22.2 | 19.0 | 90.00 | -752.0 | 45.0 | 534.3 | 492.5 | 41.72 | 12.805 | | |
| 6,300.0 | 5,675.0 | 6,072.4 | 5,675.0 | 23.8 | 20.4 | 90.00 | -846.3 | 45.0 | 567.5 | 522.9 | 44.64 | 12.713 | | |
| 6,400.0 | 5,675.0 | 6,168.3 | 5,675.0 | 25.3 | 21.9 | 90.00 | -942.2 | 45.0 | 595.8 | 548.2 | 47.61 | 12.514 | | |
| 6,500.0 | 5,675.0 | 6,265.5 | 5,675.0 | 26.8 | 23.4 | 90.00 | -1,039.4 | 45.0 | 619.1 | 568.5 | 50.60 | 12.234 | | |
| 6,600.0 | 5,675.0 | 6,363.8 | 5,675.0 | 28.4 | 25.1 | 90.00 | -1,137.7 | 45.0 | 637.2 | 583.6 | 53.57 | 11.896 | | |
| 6,700.0 | 5,675.0 | 6,463.0 | 5,675.0 | 29.9 | 26.7 | 90.00 | -1,236.9 | 45.0 | 650.1 | 593.7 | 56.47 | 11.514 | | |
| 6,800.0 | 5,675.0 | 6,562.7 | 5,675.0 | 31.4 | 28.4 | 90.00 | -1,336.6 | 45.0 | 657.9 | 598.6 | 59.27 | 11.099 | | |
| 6,898.1 | 5,675.0 | 6,660.8 | 5,675.0 | 32.9 | 30.1 | 90.00 | -1,434.7 | 45.0 | 660.4 | 598.5 | 61.90 | 10.669 | | |
| 6,900.0 | 5,675.0 | 6,662.6 | 5,675.0 | 32.9 | 30.2 | 90.00 | -1,436.5 | 45.0 | 660.4 | 598.4 | 61.96 | 10.658 | | |
| 7,000.0 | 5,675.0 | 6,762.6 | 5,675.0 | 34.5 | 31.9 | 90.00 | -1,536.5 | 45.0 | 660.4 | 595.0 | 65.37 | 10.102 | | |
| 7,100.0 | 5,675.0 | 6,862.6 | 5,675.0 | 36.0 | 33.7 | 90.00 | -1,636.5 | 45.0 | 660.4 | 591.6 | 68.82 | 9.595 | | |
| 7,200.0 | 5,675.0 | 6,962.6 | 5,675.0 | 37.6 | 35.5 | 90.00 | -1,736.5 | 45.0 | 660.4 | 588.1 | 72.32 | 9.132 | | |
| 7,300.0 | 5,675.0 | 7,062.6 | 5,675.0 | 39.2 | 37.3 | 90.00 | -1,836.5 | 45.0 | 660.4 | 584.5 | 75.84 | 8.707 | | |
| 7,400.0 | 5,675.0 | 7,162.6 | 5,675.0 | 40.9 | 39.1 | 90.00 | -1,936.5 | 45.0 | 660.4 | 581.0 | 79.40 | 8.317 | | |
| 7,500.0 | 5,675.0 | 7,262.6 | 5,675.0 | 42.6 | 40.9 | 90.00 | -2,036.5 | 45.0 | 660.4 | 577.4 | 82.98 | 7.958 | | |
| 7,600.0 | 5,675.0 | 7,362.6 | 5,675.0 | 44.2 | 42.8 | 90.00 | -2,136.5 | 45.0 | 660.3 | 573.8 | 86.58 | 7.627 | | |
| 7,700.0 | 5,675.0 | 7,462.6 | 5,675.0 | 45.9 | 44.6 | 90.00 | -2,236.5 | 45.0 | 660.3 | 570.1 | 90.20 | 7.321 | | |
| 7,800.0 | 5,675.0 | 7,562.6 | 5,675.0 | 47.7 | 46.5 | 90.00 | -2,336.5 | 45.0 | 660.3 | 566.5 | 93.84 | 7.037 | | |
| 7,900.0 | 5,675.0 | 7,662.6 | 5,675.0 | 49.4 | 48.3 | 90.00 | -2,436.5 | 45.0 | 660.3 | 562.8 | 97.49 | 6.773 | | |
| 8,000.0 | 5,675.0 | 7,762.6 | 5,675.0 | 51.1 | 50.2 | 90.00 | -2,536.5 | 45.0 | 660.3 | 559.2 | 101.16 | 6.527 | | |
| 8,100.0 | 5,675.0 | 7,862.6 | 5,675.0 | 52.9 | 52.0 | 90.00 | -2,636.5 | 45.0 | 660.3 | 555.5 | 104.84 | 6.298 | | |
| 8,200.0 | 5,675.0 | 7,962.6 | 5,675.0 | 54.7 | 53.9 | 90.00 | -2,736.5 | 45.0 | 660.3 | 551.8 | 108.53 | 6.084 | | |
| 8,300.0 | 5,675.0 | 8,062.6 | 5,675.0 | 56.5 | 55.8 | 90.00 | -2,836.5 | 45.0 | 660.3 | 548.1 | 112.23 | 5.883 | | |
| 8,400.0 | 5,675.0 | 8,162.6 | 5,675.0 | 58.2 | 57.6 | 90.00 | -2,936.5 | 45.0 | 660.3 | 544.3 | 115.94 | 5.695 | | |
| 8,500.0 | 5,675.0 | 8,262.6 | 5,675.0 | 60.0 | 59.5 | 90.00 | -3,036.5 | 45.1 | 660.3 | 540.6 | 119.66 | 5.518 | | |
| 8,600.0 | 5,675.0 | 8,362.6 | 5,675.0 | 61.8 | 61.4 | 90.00 | -3,136.5 | 45.1 | 660.3 | 536.9 | 123.38 | 5.352 | | |
| 8,700.0 | 5,675.0 | 8,462.6 | 5,675.0 | 63.6 | 63.3 | 90.00 | -3,236.5 | 45.1 | 660.3 | 533.2 | 127.11 | 5.194 | | |
| 8,800.0 | 5,675.0 | 8,562.6 | 5,675.0 | 65.5 | 65.1 | 90.00 | -3,336.5 | 45.1 | 660.3 | 529.4 | 130.85 | 5.046 | | |
| 8,900.0 | 5,675.0 | 8,662.6 | 5,675.0 | 67.3 | 67.0 | 90.00 | -3,436.5 | 45.1 | 660.3 | 525.7 | 134.59 | 4.906 | | |
| 9,000.0 | 5,675.0 | 8,762.6 | 5,675.0 | 69.1 | 68.9 | 90.00 | -3,536.5 | 45.1 | 660.2 | 521.9 | 138.34 | 4.773 | | |
| 9,100.0 | 5,675.0 | 8,862.6 | 5,675.0 | 70.9 | 70.8 | 90.00 | -3,636.5 | 45.1 | 660.2 | 518.1 | 142.09 | 4.647 | | |
| 9,200.0 | 5,675.0 | 8,962.6 | 5,675.0 | 72.8 | 72.7 | 90.00 | -3,736.5 | 45.1 | 660.2 | 514.4 | 145.85 | 4.527 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3502B - HZ - Plan #2 | | | | | | | | | | | Offset Site Error: 0.0 usft | | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|-----------------------------|----------|-------------------|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | Offset Well Error: 0.0 usft | | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | | Separation Factor |
| 9,300.0 | 5,675.0 | 9,062.6 | 5,675.0 | 74.6 | 74.6 | 90.00 | -3,836.5 | 45.1 | 660.2 | 510.6 | 149.61 | 4.413 | |
| 9,400.0 | 5,675.0 | 9,162.6 | 5,675.0 | 76.5 | 76.5 | 90.00 | -3,936.5 | 45.1 | 660.2 | 506.8 | 153.37 | 4.305 | |
| 9,500.0 | 5,675.0 | 9,262.6 | 5,675.0 | 78.3 | 78.4 | 90.00 | -4,036.5 | 45.1 | 660.2 | 503.1 | 157.14 | 4.201 | |
| 9,600.0 | 5,675.0 | 9,362.6 | 5,675.0 | 80.2 | 80.2 | 90.00 | -4,136.5 | 45.1 | 660.2 | 499.3 | 160.91 | 4.103 | |
| 9,700.0 | 5,675.0 | 9,462.6 | 5,675.0 | 82.0 | 82.1 | 90.00 | -4,236.5 | 45.1 | 660.2 | 495.5 | 164.68 | 4.009 | |
| 9,800.0 | 5,675.0 | 9,562.6 | 5,675.0 | 83.9 | 84.0 | 90.00 | -4,336.5 | 45.1 | 660.2 | 491.7 | 168.46 | 3.919 | |
| 9,900.0 | 5,675.0 | 9,662.6 | 5,675.0 | 85.7 | 85.9 | 90.00 | -4,436.5 | 45.1 | 660.2 | 487.9 | 172.24 | 3.833 | |
| 10,000.0 | 5,675.0 | 9,762.6 | 5,675.0 | 87.6 | 87.8 | 90.00 | -4,536.5 | 45.1 | 660.2 | 484.2 | 176.02 | 3.751 | |
| 10,100.0 | 5,675.0 | 9,862.6 | 5,675.0 | 89.4 | 89.7 | 90.00 | -4,636.5 | 45.1 | 660.2 | 480.4 | 179.80 | 3.672 | |
| 10,200.0 | 5,675.0 | 9,962.6 | 5,675.0 | 91.3 | 91.6 | 90.00 | -4,736.5 | 45.1 | 660.2 | 476.6 | 183.59 | 3.596 | |
| 10,300.0 | 5,675.0 | 10,062.6 | 5,675.0 | 93.2 | 93.5 | 90.00 | -4,836.5 | 45.1 | 660.2 | 472.8 | 187.37 | 3.523 | |
| 10,400.0 | 5,675.0 | 10,162.6 | 5,675.0 | 95.1 | 95.4 | 90.00 | -4,936.5 | 45.1 | 660.1 | 469.0 | 191.16 | 3.453 | |
| 10,500.0 | 5,675.0 | 10,262.6 | 5,675.0 | 96.9 | 97.3 | 90.00 | -5,036.5 | 45.1 | 660.1 | 465.2 | 194.95 | 3.386 | |
| 10,600.0 | 5,675.0 | 10,362.6 | 5,675.0 | 98.8 | 99.2 | 90.00 | -5,136.5 | 45.1 | 660.1 | 461.4 | 198.75 | 3.321 | |
| 10,700.0 | 5,675.0 | 10,462.6 | 5,675.0 | 100.7 | 101.1 | 90.00 | -5,236.5 | 45.1 | 660.1 | 457.6 | 202.54 | 3.259 | |
| 10,800.0 | 5,675.0 | 10,562.6 | 5,675.0 | 102.5 | 103.0 | 90.00 | -5,336.5 | 45.1 | 660.1 | 453.8 | 206.34 | 3.199 | |
| 10,900.0 | 5,675.0 | 10,662.6 | 5,675.0 | 104.4 | 104.9 | 90.00 | -5,436.5 | 45.1 | 660.1 | 450.0 | 210.13 | 3.141 | |
| 11,000.0 | 5,675.0 | 10,762.6 | 5,675.0 | 106.3 | 106.8 | 90.00 | -5,536.5 | 45.1 | 660.1 | 446.2 | 213.93 | 3.086 | |
| 11,100.0 | 5,675.0 | 10,862.6 | 5,675.0 | 108.2 | 108.7 | 90.00 | -5,636.5 | 45.1 | 660.1 | 442.4 | 217.73 | 3.032 | |
| 11,200.0 | 5,675.0 | 10,962.6 | 5,675.0 | 110.1 | 110.7 | 90.00 | -5,736.5 | 45.1 | 660.1 | 438.6 | 221.53 | 2.980 | |
| 11,300.0 | 5,675.0 | 11,062.6 | 5,675.0 | 111.9 | 112.6 | 90.00 | -5,836.5 | 45.1 | 660.1 | 434.7 | 225.34 | 2.929 | |
| 11,400.0 | 5,675.0 | 11,162.6 | 5,675.0 | 113.8 | 114.5 | 90.00 | -5,936.5 | 45.1 | 660.1 | 430.9 | 229.14 | 2.881 | |
| 11,500.0 | 5,675.0 | 11,262.6 | 5,675.0 | 115.7 | 116.4 | 90.00 | -6,036.5 | 45.1 | 660.1 | 427.1 | 232.94 | 2.834 | |
| 11,600.0 | 5,675.0 | 11,362.6 | 5,675.0 | 117.6 | 118.3 | 90.00 | -6,136.5 | 45.1 | 660.1 | 423.3 | 236.75 | 2.788 | |
| 11,700.0 | 5,675.0 | 11,462.6 | 5,675.0 | 119.5 | 120.2 | 90.00 | -6,236.5 | 45.1 | 660.1 | 419.5 | 240.55 | 2.744 | |
| 11,800.0 | 5,675.0 | 11,562.6 | 5,675.0 | 121.4 | 122.1 | 90.00 | -6,336.5 | 45.2 | 660.0 | 415.7 | 244.36 | 2.701 | |
| 11,900.0 | 5,675.0 | 11,662.6 | 5,675.0 | 123.3 | 124.0 | 90.00 | -6,436.5 | 45.2 | 660.0 | 411.9 | 248.17 | 2.660 | |
| 12,000.0 | 5,675.0 | 11,762.6 | 5,675.0 | 125.2 | 125.9 | 90.00 | -6,536.5 | 45.2 | 660.0 | 408.1 | 251.98 | 2.619 | |
| 12,100.0 | 5,675.0 | 11,862.6 | 5,675.0 | 127.1 | 127.8 | 90.00 | -6,636.5 | 45.2 | 660.0 | 404.2 | 255.79 | 2.580 | |
| 12,200.0 | 5,675.0 | 11,962.6 | 5,675.0 | 128.9 | 129.7 | 90.00 | -6,736.5 | 45.2 | 660.0 | 400.4 | 259.60 | 2.542 | |
| 12,300.0 | 5,675.0 | 12,062.6 | 5,675.0 | 130.8 | 131.6 | 90.00 | -6,836.5 | 45.2 | 660.0 | 396.6 | 263.41 | 2.506 | |
| 12,400.0 | 5,675.0 | 12,162.6 | 5,675.0 | 132.7 | 133.5 | 90.00 | -6,936.5 | 45.2 | 660.0 | 392.8 | 267.22 | 2.470 | |
| 12,429.3 | 5,675.0 | 12,191.9 | 5,675.0 | 133.3 | 134.1 | 90.00 | -6,965.8 | 45.2 | 660.0 | 391.7 | 268.33 | 2.460 SF | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3503A - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: | 0.0 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|---|-----------------|------------------------------|-------------------------------|------------------------------|----------------------|--------------------|----------|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | | | Offset Well Error: | 0.0 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | Total Uncertainty Axis | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -24.94 | 74.4 | -34.6 | 82.1 | | | | | |
| 100.0 | 100.0 | 100.0 | 100.0 | 0.1 | 0.1 | -24.94 | 74.4 | -34.6 | 82.1 | 81.9 | 0.19 | 437.420 | | |
| 200.0 | 200.0 | 200.0 | 200.0 | 0.3 | 0.3 | -24.94 | 74.4 | -34.6 | 82.1 | 81.5 | 0.64 | 128.835 | | |
| 300.0 | 300.0 | 300.0 | 300.0 | 0.5 | 0.5 | -24.94 | 74.4 | -34.6 | 82.1 | 81.0 | 1.09 | 75.542 | | |
| 400.0 | 400.0 | 400.0 | 400.0 | 0.8 | 0.8 | -24.94 | 74.4 | -34.6 | 82.1 | 80.6 | 1.54 | 53.438 | | |
| 500.0 | 500.0 | 500.0 | 500.0 | 1.0 | 1.0 | -24.94 | 74.4 | -34.6 | 82.1 | 80.1 | 1.99 | 41.341 | | |
| 600.0 | 600.0 | 602.6 | 602.6 | 1.2 | 1.2 | -24.39 | 73.3 | -33.2 | 80.5 | 78.1 | 2.42 | 33.269 | | |
| 700.0 | 700.0 | 704.9 | 704.7 | 1.4 | 1.4 | -22.59 | 69.7 | -29.0 | 75.7 | 72.8 | 2.85 | 26.592 | | |
| 800.0 | 800.0 | 804.6 | 804.2 | 1.7 | 1.6 | -19.95 | 65.3 | -23.7 | 69.6 | 66.3 | 3.29 | 21.162 | | |
| 900.0 | 900.0 | 904.4 | 903.7 | 1.9 | 1.8 | -16.80 | 60.8 | -18.4 | 63.6 | 59.9 | 3.74 | 17.013 | | |
| 1,000.0 | 1,000.0 | 1,004.1 | 1,003.2 | 2.1 | 2.1 | -13.02 | 56.3 | -13.0 | 57.9 | 53.7 | 4.20 | 13.793 | | |
| 1,100.0 | 1,100.0 | 1,104.0 | 1,102.8 | 2.3 | 2.3 | -120.16 | 51.8 | -7.7 | 53.3 | 48.7 | 4.61 | 11.566 | | |
| 1,200.0 | 1,199.8 | 1,203.9 | 1,202.6 | 2.5 | 2.6 | -120.27 | 47.4 | -2.3 | 50.6 | 45.6 | 5.04 | 10.049 | | |
| 1,300.0 | 1,299.6 | 1,303.9 | 1,302.3 | 2.7 | 2.8 | -122.11 | 42.9 | 3.0 | 48.8 | 43.3 | 5.47 | 8.921 | | |
| 1,400.0 | 1,399.4 | 1,403.9 | 1,402.0 | 2.9 | 3.1 | -124.09 | 38.4 | 8.3 | 47.0 | 41.1 | 5.91 | 7.960 | | |
| 1,500.0 | 1,499.1 | 1,503.9 | 1,501.7 | 3.2 | 3.3 | -126.22 | 33.9 | 13.7 | 45.3 | 39.0 | 6.35 | 7.138 | | |
| 1,600.0 | 1,598.9 | 1,603.8 | 1,601.5 | 3.4 | 3.6 | -128.51 | 29.4 | 19.0 | 43.7 | 36.9 | 6.79 | 6.431 | | |
| 1,700.0 | 1,698.6 | 1,703.8 | 1,701.2 | 3.6 | 3.8 | -130.98 | 24.9 | 24.4 | 42.1 | 34.9 | 7.23 | 5.821 | | |
| 1,800.0 | 1,798.4 | 1,803.8 | 1,800.9 | 3.9 | 4.1 | -133.64 | 20.5 | 29.7 | 40.6 | 32.9 | 7.67 | 5.294 | | |
| 1,900.0 | 1,898.1 | 1,903.7 | 1,900.6 | 4.1 | 4.4 | -136.49 | 16.0 | 35.0 | 39.2 | 31.1 | 8.11 | 4.837 | | |
| 2,000.0 | 1,997.9 | 2,003.7 | 2,000.4 | 4.4 | 4.6 | -139.54 | 11.5 | 40.4 | 37.9 | 29.4 | 8.54 | 4.440 | | |
| 2,100.0 | 2,097.6 | 2,103.7 | 2,100.1 | 4.6 | 4.9 | -142.79 | 7.0 | 45.7 | 36.8 | 27.8 | 8.98 | 4.095 | | |
| 2,200.0 | 2,197.4 | 2,203.6 | 2,199.8 | 4.8 | 5.1 | -146.25 | 2.5 | 51.1 | 35.7 | 26.3 | 9.41 | 3.797 | | |
| 2,300.0 | 2,297.2 | 2,303.6 | 2,299.5 | 5.1 | 5.4 | -149.90 | -2.0 | 56.4 | 34.8 | 25.0 | 9.84 | 3.539 | | |
| 2,400.0 | 2,396.9 | 2,403.6 | 2,399.3 | 5.3 | 5.7 | -153.73 | -6.4 | 61.8 | 34.1 | 23.8 | 10.27 | 3.316 | | |
| 2,500.0 | 2,496.7 | 2,503.6 | 2,499.0 | 5.6 | 5.9 | -157.71 | -10.9 | 67.1 | 33.5 | 22.8 | 10.71 | 3.126 | | |
| 2,600.0 | 2,596.4 | 2,603.5 | 2,598.7 | 5.8 | 6.2 | -161.82 | -15.4 | 72.4 | 33.0 | 21.9 | 11.15 | 2.963 | | |
| 2,700.0 | 2,696.2 | 2,703.5 | 2,698.5 | 6.1 | 6.4 | -166.01 | -19.9 | 77.8 | 32.8 | 21.2 | 11.60 | 2.825 | | |
| 2,794.7 | 2,790.6 | 2,798.2 | 2,792.9 | 6.3 | 6.7 | -170.02 | -24.1 | 82.8 | 32.7 | 20.7 | 12.04 | 2.716 CC | | |
| 2,800.0 | 2,795.9 | 2,803.5 | 2,798.2 | 6.4 | 6.7 | -170.25 | -24.4 | 83.1 | 32.7 | 20.6 | 12.06 | 2.710 | | |
| 2,900.0 | 2,895.7 | 2,903.4 | 2,897.9 | 6.6 | 7.0 | -174.48 | -28.8 | 88.5 | 32.8 | 20.3 | 12.54 | 2.615 | | |
| 3,000.0 | 2,995.5 | 3,003.4 | 2,997.6 | 6.9 | 7.2 | -178.67 | -33.3 | 93.8 | 33.1 | 20.0 | 13.03 | 2.539 | | |
| 3,100.0 | 3,095.2 | 3,103.4 | 3,097.4 | 7.1 | 7.5 | -177.23 | -37.8 | 99.2 | 33.5 | 20.0 | 13.53 | 2.478 ES | | |
| 3,200.0 | 3,195.0 | 3,203.4 | 3,197.1 | 7.4 | 7.7 | -173.26 | -42.3 | 104.5 | 34.1 | 20.1 | 14.04 | 2.430 | | |
| 3,300.0 | 3,294.7 | 3,303.3 | 3,296.8 | 7.6 | 8.0 | -169.45 | -46.8 | 109.8 | 34.9 | 20.3 | 14.57 | 2.396 | | |
| 3,400.0 | 3,394.5 | 3,403.3 | 3,396.5 | 7.9 | 8.3 | -165.82 | -51.3 | 115.2 | 35.8 | 20.7 | 15.11 | 2.371 | | |
| 3,500.0 | 3,494.2 | 3,503.3 | 3,496.3 | 8.1 | 8.5 | -162.39 | -55.7 | 120.5 | 36.9 | 21.2 | 15.65 | 2.356 | | |
| 3,600.0 | 3,594.0 | 3,603.2 | 3,596.0 | 8.4 | 8.8 | -159.16 | -60.2 | 125.9 | 38.1 | 21.9 | 16.21 | 2.349 | | |
| 3,700.0 | 3,693.7 | 3,703.2 | 3,695.7 | 8.7 | 9.1 | -156.13 | -64.7 | 131.2 | 39.4 | 22.6 | 16.76 | 2.349 | | |
| 3,800.0 | 3,793.5 | 3,803.2 | 3,795.5 | 8.9 | 9.3 | -153.30 | -69.2 | 136.5 | 40.8 | 23.4 | 17.32 | 2.354 | | |
| 3,900.0 | 3,893.3 | 3,903.1 | 3,895.2 | 9.2 | 9.6 | -150.67 | -73.7 | 141.9 | 42.3 | 24.4 | 17.88 | 2.363 | | |
| 4,000.0 | 3,993.0 | 4,003.1 | 3,994.9 | 9.4 | 9.8 | -148.22 | -78.2 | 147.2 | 43.8 | 25.4 | 18.44 | 2.377 | | |
| 4,100.0 | 4,092.8 | 4,103.1 | 4,094.6 | 9.7 | 10.1 | -145.94 | -82.6 | 152.6 | 45.5 | 26.5 | 19.00 | 2.394 | | |
| 4,200.0 | 4,192.5 | 4,203.1 | 4,194.4 | 10.0 | 10.4 | -143.82 | -87.1 | 157.9 | 47.2 | 27.6 | 19.56 | 2.413 | | |
| 4,300.0 | 4,292.3 | 4,303.0 | 4,294.1 | 10.2 | 10.6 | -141.86 | -91.6 | 163.3 | 49.0 | 28.9 | 20.11 | 2.435 | | |
| 4,400.0 | 4,392.0 | 4,403.0 | 4,393.8 | 10.5 | 10.9 | -140.04 | -96.1 | 168.6 | 50.8 | 30.1 | 20.67 | 2.458 | | |
| 4,500.0 | 4,491.8 | 4,502.9 | 4,493.5 | 10.7 | 11.2 | -138.34 | -100.6 | 173.9 | 52.7 | 31.5 | 21.22 | 2.482 | | |
| 4,600.0 | 4,591.6 | 4,602.0 | 4,592.5 | 11.0 | 11.4 | -138.45 | -103.8 | 177.8 | 55.5 | 33.8 | 21.67 | 2.558 | | |
| 4,700.0 | 4,691.3 | 4,700.9 | 4,691.3 | 11.2 | 11.6 | -141.42 | -104.9 | 179.1 | 60.0 | 38.0 | 22.00 | 2.725 | | |
| 4,800.0 | 4,791.1 | 4,800.6 | 4,791.1 | 11.5 | 11.7 | -145.23 | -104.9 | 179.1 | 65.6 | 43.3 | 22.29 | 2.941 | | |
| 4,900.0 | 4,890.9 | 4,900.5 | 4,890.9 | 11.7 | 11.9 | -147.72 | -104.9 | 179.1 | 69.9 | 47.3 | 22.58 | 3.097 | | |
| 5,000.0 | 4,990.9 | 5,000.5 | 4,990.9 | 11.9 | 12.1 | -101.52 | -104.9 | 179.1 | 71.4 | 49.3 | 22.10 | 3.231 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3503A - HZ - Plan #2 | | | | | | | | | | | | | Offset Site Error: 0.0 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|-----------------------------|--|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | | | Offset Well Error: 0.0 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | Separation Factor | | |
| 5,100.0 | 5,090.9 | 5,100.7 | 5,091.1 | 12.1 | 12.2 | -102.00 | -105.5 | 179.3 | 71.4 | 48.9 | 22.49 | 3.173 | | |
| 5,140.3 | 5,131.2 | 5,141.0 | 5,131.2 | 12.2 | 12.3 | -104.80 | -108.9 | 180.2 | 71.3 | 48.5 | 22.74 | 3.135 | | |
| 5,163.2 | 5,154.1 | 5,163.5 | 5,153.5 | 12.2 | 12.4 | -107.45 | -112.1 | 181.0 | 71.4 | 48.4 | 22.92 | 3.114 | | |
| 5,200.0 | 5,190.9 | 5,199.4 | 5,188.6 | 12.3 | 12.5 | 95.19 | -119.0 | 182.9 | 72.2 | 48.1 | 24.15 | 2.990 | | |
| 5,250.0 | 5,240.5 | 5,247.4 | 5,234.7 | 12.4 | 12.7 | 88.90 | -132.0 | 186.3 | 75.0 | 50.4 | 24.67 | 3.041 | | |
| 5,300.0 | 5,289.3 | 5,294.7 | 5,278.7 | 12.6 | 13.0 | 83.29 | -148.8 | 190.7 | 79.6 | 54.4 | 25.19 | 3.160 | | |
| 5,350.0 | 5,336.9 | 5,341.2 | 5,320.3 | 12.8 | 13.2 | 78.52 | -168.9 | 196.0 | 85.7 | 60.0 | 25.69 | 3.335 | | |
| 5,400.0 | 5,382.8 | 5,387.1 | 5,359.3 | 13.0 | 13.5 | 74.64 | -192.2 | 202.2 | 92.9 | 66.7 | 26.15 | 3.553 | | |
| 5,450.0 | 5,426.6 | 5,432.3 | 5,395.5 | 13.3 | 13.8 | 71.55 | -218.4 | 209.1 | 101.0 | 74.5 | 26.57 | 3.802 | | |
| 5,500.0 | 5,467.9 | 5,476.9 | 5,428.8 | 13.6 | 14.2 | 69.16 | -247.0 | 216.7 | 109.9 | 82.9 | 26.98 | 4.072 | | |
| 5,550.0 | 5,506.3 | 5,520.9 | 5,459.1 | 13.9 | 14.6 | 67.35 | -278.0 | 224.8 | 119.2 | 91.8 | 27.40 | 4.351 | | |
| 5,600.0 | 5,541.5 | 5,564.5 | 5,486.3 | 14.4 | 15.0 | 66.00 | -310.8 | 233.5 | 128.9 | 101.1 | 27.84 | 4.631 | | |
| 5,650.0 | 5,573.1 | 5,607.6 | 5,510.3 | 14.8 | 15.4 | 65.03 | -345.4 | 242.7 | 138.9 | 110.6 | 28.34 | 4.901 | | |
| 5,700.0 | 5,600.8 | 5,650.0 | 5,530.9 | 15.3 | 15.9 | 64.36 | -381.2 | 252.1 | 149.0 | 120.1 | 28.91 | 5.155 | | |
| 5,750.0 | 5,624.4 | 5,692.7 | 5,548.6 | 15.9 | 16.4 | 63.94 | -418.8 | 262.1 | 159.2 | 129.6 | 29.58 | 5.382 | | |
| 5,800.0 | 5,643.7 | 5,734.8 | 5,562.9 | 16.5 | 17.0 | 63.72 | -457.1 | 272.2 | 169.4 | 139.1 | 30.38 | 5.578 | | |
| 5,850.0 | 5,658.5 | 5,776.8 | 5,573.9 | 17.2 | 17.6 | 63.67 | -496.2 | 282.5 | 179.6 | 148.3 | 31.31 | 5.735 | | |
| 5,900.0 | 5,668.6 | 5,818.6 | 5,581.6 | 17.9 | 18.1 | 63.75 | -536.0 | 293.0 | 189.6 | 157.3 | 32.37 | 5.859 | | |
| 5,950.0 | 5,674.0 | 5,860.3 | 5,585.9 | 18.7 | 18.8 | 63.95 | -576.1 | 303.6 | 199.5 | 166.0 | 33.54 | 5.949 | | |
| 5,981.4 | 5,675.0 | 5,886.5 | 5,586.9 | 19.1 | 19.1 | 64.13 | -601.4 | 310.3 | 205.6 | 171.3 | 34.33 | 5.989 | | |
| 6,000.0 | 5,675.0 | 5,900.0 | 5,587.0 | 19.4 | 19.3 | 64.55 | -614.4 | 313.7 | 209.2 | 174.4 | 34.87 | 6.001 | | |
| 6,100.0 | 5,675.0 | 5,991.0 | 5,587.0 | 20.8 | 20.5 | 66.91 | -703.0 | 334.6 | 228.6 | 190.8 | 37.82 | 6.044 | | |
| 6,200.0 | 5,675.0 | 6,078.7 | 5,587.0 | 22.2 | 21.7 | 68.79 | -789.2 | 350.7 | 247.7 | 207.0 | 40.71 | 6.085 | | |
| 6,300.0 | 5,675.0 | 6,165.7 | 5,587.0 | 23.8 | 22.9 | 70.37 | -875.3 | 362.7 | 266.4 | 222.9 | 43.55 | 6.118 | | |
| 6,400.0 | 5,675.0 | 6,252.0 | 5,587.0 | 25.3 | 24.1 | 71.69 | -961.3 | 370.8 | 284.7 | 238.4 | 46.33 | 6.145 | | |
| 6,500.0 | 5,675.0 | 6,337.7 | 5,587.0 | 26.8 | 25.4 | 72.81 | -1,046.9 | 374.9 | 302.3 | 253.3 | 49.01 | 6.169 | | |
| 6,600.0 | 5,675.0 | 6,428.5 | 5,587.0 | 28.4 | 26.7 | 73.80 | -1,137.7 | 375.5 | 319.0 | 267.3 | 51.71 | 6.169 | | |
| 6,700.0 | 5,675.0 | 6,527.7 | 5,587.0 | 29.9 | 28.3 | 74.53 | -1,236.8 | 375.5 | 331.5 | 277.0 | 54.45 | 6.088 | | |
| 6,800.0 | 5,675.0 | 6,627.4 | 5,587.0 | 31.4 | 30.0 | 74.94 | -1,336.5 | 375.5 | 339.0 | 282.0 | 57.01 | 5.946 | | |
| 6,898.1 | 5,675.0 | 6,725.5 | 5,587.0 | 32.9 | 31.6 | 75.06 | -1,434.6 | 375.5 | 341.4 | 282.1 | 59.33 | 5.755 | | |
| 6,900.0 | 5,675.0 | 6,727.3 | 5,587.0 | 32.9 | 31.7 | 75.07 | -1,436.5 | 375.5 | 341.4 | 282.0 | 59.39 | 5.749 | | |
| 7,000.0 | 5,675.0 | 6,827.3 | 5,587.0 | 34.5 | 33.4 | 75.07 | -1,536.5 | 375.5 | 341.4 | 278.7 | 62.68 | 5.446 | | |
| 7,100.0 | 5,675.0 | 6,927.3 | 5,587.0 | 36.0 | 35.1 | 75.07 | -1,636.5 | 375.5 | 341.4 | 275.4 | 66.03 | 5.171 | | |
| 7,200.0 | 5,675.0 | 7,027.3 | 5,587.0 | 37.6 | 36.8 | 75.07 | -1,736.5 | 375.5 | 341.4 | 272.0 | 69.41 | 4.919 | | |
| 7,300.0 | 5,675.0 | 7,127.3 | 5,587.0 | 39.2 | 38.6 | 75.07 | -1,836.5 | 375.5 | 341.4 | 268.6 | 72.82 | 4.688 | | |
| 7,400.0 | 5,675.0 | 7,227.3 | 5,587.0 | 40.9 | 40.4 | 75.07 | -1,936.5 | 375.5 | 341.4 | 265.2 | 76.27 | 4.477 | | |
| 7,500.0 | 5,675.0 | 7,327.3 | 5,587.0 | 42.6 | 42.1 | 75.07 | -2,036.5 | 375.5 | 341.4 | 261.7 | 79.73 | 4.282 | | |
| 7,600.0 | 5,675.0 | 7,427.3 | 5,587.0 | 44.2 | 43.9 | 75.07 | -2,136.5 | 375.5 | 341.4 | 258.2 | 83.23 | 4.102 | | |
| 7,700.0 | 5,675.0 | 7,527.3 | 5,587.0 | 45.9 | 45.7 | 75.07 | -2,236.5 | 375.5 | 341.4 | 254.7 | 86.74 | 3.936 | | |
| 7,800.0 | 5,675.0 | 7,627.3 | 5,587.0 | 47.7 | 47.6 | 75.07 | -2,336.5 | 375.5 | 341.4 | 251.2 | 90.26 | 3.783 | | |
| 7,900.0 | 5,675.0 | 7,727.3 | 5,587.0 | 49.4 | 49.4 | 75.07 | -2,436.5 | 375.5 | 341.4 | 247.6 | 93.81 | 3.640 | | |
| 8,000.0 | 5,675.0 | 7,827.3 | 5,587.0 | 51.1 | 51.2 | 75.07 | -2,536.5 | 375.5 | 341.4 | 244.1 | 97.36 | 3.507 | | |
| 8,100.0 | 5,675.0 | 7,927.3 | 5,587.0 | 52.9 | 53.0 | 75.07 | -2,636.5 | 375.4 | 341.4 | 240.5 | 100.93 | 3.383 | | |
| 8,200.0 | 5,675.0 | 8,027.3 | 5,587.0 | 54.7 | 54.9 | 75.07 | -2,736.5 | 375.4 | 341.4 | 236.9 | 104.51 | 3.267 | | |
| 8,300.0 | 5,675.0 | 8,127.3 | 5,587.0 | 56.5 | 56.7 | 75.07 | -2,836.5 | 375.4 | 341.4 | 233.3 | 108.10 | 3.158 | | |
| 8,400.0 | 5,675.0 | 8,227.3 | 5,587.0 | 58.2 | 58.6 | 75.07 | -2,936.5 | 375.4 | 341.4 | 229.7 | 111.70 | 3.057 | | |
| 8,500.0 | 5,675.0 | 8,327.3 | 5,587.0 | 60.0 | 60.4 | 75.07 | -3,036.5 | 375.4 | 341.4 | 226.1 | 115.31 | 2.961 | | |
| 8,600.0 | 5,675.0 | 8,427.3 | 5,587.0 | 61.8 | 62.3 | 75.07 | -3,136.5 | 375.4 | 341.4 | 222.5 | 118.92 | 2.871 | | |
| 8,700.0 | 5,675.0 | 8,527.3 | 5,587.0 | 63.6 | 64.2 | 75.07 | -3,236.5 | 375.4 | 341.4 | 218.9 | 122.54 | 2.786 | | |
| 8,800.0 | 5,675.0 | 8,627.3 | 5,587.0 | 65.5 | 66.0 | 75.07 | -3,336.5 | 375.4 | 341.4 | 215.3 | 126.17 | 2.706 | | |
| 8,900.0 | 5,675.0 | 8,727.3 | 5,587.0 | 67.3 | 67.9 | 75.07 | -3,436.5 | 375.4 | 341.5 | 211.7 | 129.80 | 2.631 | | |
| 9,000.0 | 5,675.0 | 8,827.3 | 5,587.0 | 69.1 | 69.8 | 75.07 | -3,536.5 | 375.4 | 341.5 | 208.0 | 133.43 | 2.559 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor #26L-3503A - HZ - Plan #2 | | | | | | | | | | | Offset Site Error: 0.0 usft | | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|-----------------------------|-------------------|-------------------|
| Survey Program: 0-ISCWSA MWD | | | | | | | | | | | Offset Well Error: 0.0 usft | | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | | Separation Factor |
| 9,100.0 | 5,675.0 | 8,927.3 | 5,587.0 | 70.9 | 71.6 | 75.07 | -3,636.5 | 375.4 | 341.5 | 204.4 | 137.08 | 2.491 | |
| 9,200.0 | 5,675.0 | 9,027.3 | 5,587.0 | 72.8 | 73.5 | 75.07 | -3,736.5 | 375.4 | 341.5 | 200.7 | 140.72 | 2.426 | |
| 9,300.0 | 5,675.0 | 9,127.3 | 5,587.0 | 74.6 | 75.4 | 75.07 | -3,836.5 | 375.4 | 341.5 | 197.1 | 144.37 | 2.365 | |
| 9,400.0 | 5,675.0 | 9,227.3 | 5,587.0 | 76.5 | 77.3 | 75.07 | -3,936.5 | 375.4 | 341.5 | 193.4 | 148.03 | 2.307 | |
| 9,500.0 | 5,675.0 | 9,327.3 | 5,587.0 | 78.3 | 79.1 | 75.07 | -4,036.5 | 375.4 | 341.5 | 189.8 | 151.68 | 2.251 | |
| 9,600.0 | 5,675.0 | 9,427.3 | 5,587.0 | 80.2 | 81.0 | 75.07 | -4,136.5 | 375.4 | 341.5 | 186.1 | 155.34 | 2.198 | |
| 9,700.0 | 5,675.0 | 9,527.3 | 5,587.0 | 82.0 | 82.9 | 75.07 | -4,236.5 | 375.3 | 341.5 | 182.5 | 159.00 | 2.148 | |
| 9,800.0 | 5,675.0 | 9,627.3 | 5,587.0 | 83.9 | 84.8 | 75.07 | -4,336.5 | 375.3 | 341.5 | 178.8 | 162.67 | 2.099 | |
| 9,900.0 | 5,675.0 | 9,727.3 | 5,587.0 | 85.7 | 86.7 | 75.07 | -4,436.5 | 375.3 | 341.5 | 175.1 | 166.34 | 2.053 | |
| 10,000.0 | 5,675.0 | 9,827.3 | 5,587.0 | 87.6 | 88.6 | 75.07 | -4,536.5 | 375.3 | 341.5 | 171.5 | 170.01 | 2.009 | |
| 10,100.0 | 5,675.0 | 9,927.3 | 5,587.0 | 89.4 | 90.5 | 75.07 | -4,636.5 | 375.3 | 341.5 | 167.8 | 173.68 | 1.966 | |
| 10,200.0 | 5,675.0 | 10,027.3 | 5,587.0 | 91.3 | 92.4 | 75.07 | -4,736.5 | 375.3 | 341.5 | 164.1 | 177.36 | 1.925 | |
| 10,300.0 | 5,675.0 | 10,127.3 | 5,587.0 | 93.2 | 94.2 | 75.07 | -4,836.5 | 375.3 | 341.5 | 160.4 | 181.03 | 1.886 | |
| 10,400.0 | 5,675.0 | 10,227.3 | 5,587.0 | 95.1 | 96.1 | 75.07 | -4,936.5 | 375.3 | 341.5 | 156.8 | 184.71 | 1.849 | |
| 10,500.0 | 5,675.0 | 10,327.3 | 5,587.0 | 96.9 | 98.0 | 75.07 | -5,036.5 | 375.3 | 341.5 | 153.1 | 188.39 | 1.813 | |
| 10,600.0 | 5,675.0 | 10,427.3 | 5,587.0 | 98.8 | 99.9 | 75.07 | -5,136.5 | 375.3 | 341.5 | 149.4 | 192.08 | 1.778 | |
| 10,700.0 | 5,675.0 | 10,527.3 | 5,587.0 | 100.7 | 101.8 | 75.07 | -5,236.5 | 375.3 | 341.5 | 145.7 | 195.76 | 1.744 | |
| 10,800.0 | 5,675.0 | 10,627.3 | 5,587.0 | 102.5 | 103.7 | 75.07 | -5,336.5 | 375.3 | 341.5 | 142.0 | 199.44 | 1.712 | |
| 10,900.0 | 5,675.0 | 10,727.3 | 5,587.0 | 104.4 | 105.6 | 75.07 | -5,436.5 | 375.3 | 341.5 | 138.4 | 203.13 | 1.681 | |
| 11,000.0 | 5,675.0 | 10,827.3 | 5,587.0 | 106.3 | 107.5 | 75.07 | -5,536.5 | 375.3 | 341.5 | 134.7 | 206.82 | 1.651 | |
| 11,100.0 | 5,675.0 | 10,927.3 | 5,587.0 | 108.2 | 109.4 | 75.07 | -5,636.5 | 375.3 | 341.5 | 131.0 | 210.51 | 1.622 | |
| 11,200.0 | 5,675.0 | 11,027.3 | 5,587.0 | 110.1 | 111.3 | 75.07 | -5,736.5 | 375.3 | 341.5 | 127.3 | 214.20 | 1.594 | |
| 11,300.0 | 5,675.0 | 11,127.3 | 5,587.0 | 111.9 | 113.2 | 75.07 | -5,836.5 | 375.2 | 341.5 | 123.6 | 217.89 | 1.567 | |
| 11,400.0 | 5,675.0 | 11,227.3 | 5,587.0 | 113.8 | 115.1 | 75.07 | -5,936.5 | 375.2 | 341.5 | 119.9 | 221.58 | 1.541 | |
| 11,500.0 | 5,675.0 | 11,327.3 | 5,587.0 | 115.7 | 117.0 | 75.07 | -6,036.5 | 375.2 | 341.5 | 116.2 | 225.28 | 1.516 | |
| 11,600.0 | 5,675.0 | 11,427.3 | 5,587.0 | 117.6 | 118.9 | 75.07 | -6,136.5 | 375.2 | 341.5 | 112.5 | 228.97 | 1.492 Level 3 | |
| 11,700.0 | 5,675.0 | 11,527.3 | 5,587.0 | 119.5 | 120.8 | 75.07 | -6,236.5 | 375.2 | 341.5 | 108.8 | 232.67 | 1.468 Level 3 | |
| 11,800.0 | 5,675.0 | 11,627.3 | 5,587.0 | 121.4 | 122.7 | 75.07 | -6,336.5 | 375.2 | 341.5 | 105.2 | 236.36 | 1.445 Level 3 | |
| 11,900.0 | 5,675.0 | 11,727.3 | 5,587.0 | 123.3 | 124.6 | 75.07 | -6,436.5 | 375.2 | 341.5 | 101.5 | 240.06 | 1.423 Level 3 | |
| 12,000.0 | 5,675.0 | 11,827.3 | 5,587.0 | 125.2 | 126.5 | 75.07 | -6,536.5 | 375.2 | 341.5 | 97.8 | 243.76 | 1.401 Level 3 | |
| 12,100.0 | 5,675.0 | 11,927.3 | 5,587.0 | 127.1 | 128.4 | 75.07 | -6,636.5 | 375.2 | 341.5 | 94.1 | 247.46 | 1.380 Level 3 | |
| 12,200.0 | 5,675.0 | 12,027.3 | 5,587.0 | 128.9 | 130.3 | 75.07 | -6,736.5 | 375.2 | 341.5 | 90.4 | 251.15 | 1.360 Level 3 | |
| 12,300.0 | 5,675.0 | 12,127.3 | 5,587.0 | 130.8 | 132.2 | 75.07 | -6,836.5 | 375.2 | 341.5 | 86.7 | 254.86 | 1.340 Level 3 | |
| 12,400.0 | 5,675.0 | 12,227.3 | 5,587.0 | 132.7 | 134.1 | 75.07 | -6,936.5 | 375.2 | 341.5 | 83.0 | 258.56 | 1.321 Level 3 | |
| 12,429.3 | 5,675.0 | 12,256.6 | 5,587.0 | 133.3 | 134.7 | 75.07 | -6,965.7 | 375.2 | 341.5 | 81.9 | 259.64 | 1.315 Level 3, SF | |

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor 26-3524H (Existing) - Existing - SURVEYs | | | | | | | | | | | | | Offset Site Error: 0.0 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|-----------------------------|--|
| Survey Program: 113-ISCWSA MWD | | | | | | | | | | | | | Offset Well Error: 0.0 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | Separation Factor | | |
| 5,450.0 | 5,426.6 | 5,526.2 | 5,471.6 | 13.3 | 11.9 | -70.85 | -90.5 | 1,275.9 | 994.5 | 970.1 | 24.38 | 40.784 | | |
| 5,500.0 | 5,467.9 | 5,562.2 | 5,497.0 | 13.6 | 12.2 | -71.73 | -116.0 | 1,276.8 | 981.8 | 957.0 | 24.81 | 39.573 | | |
| 5,550.0 | 5,506.3 | 5,608.6 | 5,527.3 | 13.9 | 12.5 | -72.65 | -151.2 | 1,278.5 | 968.2 | 942.8 | 25.38 | 38.142 | | |
| 5,600.0 | 5,541.5 | 5,667.0 | 5,561.8 | 14.4 | 12.9 | -73.65 | -198.2 | 1,280.3 | 952.8 | 926.6 | 26.15 | 36.434 | | |
| 5,650.0 | 5,573.1 | 5,705.7 | 5,582.7 | 14.8 | 13.3 | -75.12 | -230.8 | 1,281.6 | 936.1 | 909.2 | 26.89 | 34.815 | | |
| 5,700.0 | 5,600.8 | 5,739.8 | 5,598.9 | 15.3 | 13.6 | -76.77 | -260.7 | 1,283.2 | 919.0 | 891.3 | 27.69 | 33.185 | | |
| 5,750.0 | 5,624.4 | 5,774.5 | 5,613.2 | 15.9 | 13.9 | -78.54 | -292.2 | 1,285.3 | 901.3 | 872.7 | 28.67 | 31.435 | | |
| 5,800.0 | 5,643.7 | 5,807.9 | 5,625.2 | 16.5 | 14.3 | -80.44 | -323.3 | 1,288.0 | 883.6 | 853.9 | 29.73 | 29.719 | | |
| 5,850.0 | 5,658.5 | 5,848.1 | 5,637.1 | 17.2 | 14.8 | -82.44 | -361.6 | 1,291.5 | 865.6 | 834.7 | 30.93 | 27.987 | | |
| 5,900.0 | 5,668.6 | 5,901.1 | 5,647.9 | 17.9 | 15.4 | -84.53 | -413.2 | 1,296.2 | 847.1 | 814.8 | 32.32 | 26.212 | | |
| 5,950.0 | 5,674.0 | 5,958.0 | 5,653.5 | 18.7 | 16.1 | -86.72 | -469.6 | 1,300.6 | 827.6 | 793.8 | 33.79 | 24.496 | | |
| 5,981.4 | 5,675.0 | 5,986.2 | 5,654.3 | 19.1 | 16.5 | -88.19 | -497.7 | 1,302.5 | 815.1 | 780.4 | 34.63 | 23.535 | | |
| 6,000.0 | 5,675.0 | 6,022.1 | 5,654.3 | 19.4 | 17.0 | -88.16 | -533.6 | 1,304.7 | 807.7 | 772.4 | 35.33 | 22.860 | | |
| 6,100.0 | 5,675.0 | 6,111.7 | 5,653.7 | 20.8 | 18.0 | -88.06 | -623.1 | 1,308.7 | 768.9 | 731.2 | 37.72 | 20.385 | | |
| 6,200.0 | 5,675.0 | 6,210.0 | 5,653.5 | 22.2 | 19.3 | -88.00 | -721.2 | 1,312.8 | 734.6 | 694.2 | 40.34 | 18.210 | | |
| 6,300.0 | 5,675.0 | 6,312.2 | 5,654.6 | 23.8 | 20.7 | -88.03 | -823.4 | 1,316.9 | 705.2 | 662.0 | 43.18 | 16.332 | | |
| 6,400.0 | 5,675.0 | 6,424.9 | 5,655.7 | 25.3 | 22.4 | -88.07 | -936.0 | 1,320.4 | 680.0 | 633.7 | 46.32 | 14.679 | | |
| 6,500.0 | 5,675.0 | 6,534.2 | 5,655.7 | 26.8 | 24.0 | -88.02 | -1,045.3 | 1,319.8 | 656.2 | 606.8 | 49.38 | 13.288 | | |
| 6,600.0 | 5,675.0 | 6,610.7 | 5,655.8 | 28.4 | 25.2 | -88.00 | -1,121.8 | 1,320.2 | 638.6 | 586.7 | 51.91 | 12.303 | | |
| 6,700.0 | 5,675.0 | 6,704.4 | 5,657.1 | 29.9 | 26.6 | -88.10 | -1,215.4 | 1,323.1 | 628.7 | 574.0 | 54.65 | 11.504 | | |
| 6,791.9 | 5,675.0 | 6,782.9 | 5,659.2 | 31.3 | 27.9 | -88.28 | -1,293.8 | 1,326.3 | 625.1 | 568.1 | 56.98 | 10.971 CC | | |
| 6,800.0 | 5,675.0 | 6,790.4 | 5,659.3 | 31.4 | 28.0 | -88.30 | -1,301.3 | 1,326.8 | 625.1 | 567.9 | 57.19 | 10.930 | | |
| 6,898.1 | 5,675.0 | 6,896.1 | 5,660.2 | 32.9 | 29.7 | -88.38 | -1,406.9 | 1,331.2 | 626.6 | 566.7 | 59.95 | 10.453 | | |
| 6,900.0 | 5,675.0 | 6,897.5 | 5,660.2 | 32.9 | 29.8 | -88.39 | -1,408.3 | 1,331.2 | 626.7 | 566.7 | 60.00 | 10.445 | | |
| 7,000.0 | 5,675.0 | 7,018.3 | 5,660.5 | 34.5 | 31.8 | -88.41 | -1,529.1 | 1,334.6 | 629.5 | 565.9 | 63.64 | 9.892 | | |
| 7,100.0 | 5,675.0 | 7,106.5 | 5,659.7 | 36.0 | 33.2 | -88.35 | -1,617.3 | 1,336.2 | 631.4 | 564.6 | 66.79 | 9.454 | | |
| 7,200.0 | 5,675.0 | 7,213.8 | 5,659.6 | 37.6 | 35.0 | -88.35 | -1,724.5 | 1,338.5 | 633.5 | 563.3 | 70.24 | 9.019 | | |
| 7,300.0 | 5,675.0 | 7,326.7 | 5,659.3 | 39.2 | 36.9 | -88.32 | -1,837.4 | 1,339.4 | 634.3 | 560.4 | 73.87 | 8.587 | | |
| 7,400.0 | 5,675.0 | 7,437.3 | 5,657.7 | 40.9 | 38.8 | -88.18 | -1,947.9 | 1,339.1 | 634.2 | 556.7 | 77.49 | 8.184 | | |
| 7,500.0 | 5,675.0 | 7,533.5 | 5,657.6 | 42.6 | 40.4 | -88.16 | -2,044.1 | 1,338.0 | 633.0 | 552.2 | 80.84 | 7.831 | | |
| 7,581.3 | 5,675.0 | 7,605.4 | 5,657.5 | 43.9 | 41.6 | -88.16 | -2,116.1 | 1,337.5 | 632.5 | 549.0 | 83.48 | 7.576 | | |
| 7,600.0 | 5,675.0 | 7,624.7 | 5,657.9 | 44.2 | 41.9 | -88.19 | -2,135.4 | 1,337.6 | 632.5 | 548.4 | 84.14 | 7.518 | | |
| 7,700.0 | 5,675.0 | 7,710.9 | 5,659.2 | 45.9 | 43.4 | -88.31 | -2,221.5 | 1,338.5 | 633.5 | 546.1 | 87.40 | 7.249 | | |
| 7,800.0 | 5,675.0 | 7,803.8 | 5,660.4 | 47.7 | 45.0 | -88.42 | -2,314.4 | 1,341.2 | 636.5 | 545.7 | 90.82 | 7.008 | | |
| 7,900.0 | 5,675.0 | 7,913.7 | 5,659.8 | 49.4 | 46.9 | -88.39 | -2,424.2 | 1,345.2 | 640.2 | 545.6 | 94.54 | 6.771 | | |
| 8,000.0 | 5,675.0 | 8,021.0 | 5,659.1 | 51.1 | 48.8 | -88.32 | -2,531.5 | 1,346.4 | 641.3 | 543.1 | 98.19 | 6.532 | | |
| 8,100.0 | 5,675.0 | 8,142.4 | 5,658.5 | 52.9 | 50.9 | -88.26 | -2,652.9 | 1,344.0 | 639.2 | 537.1 | 102.10 | 6.260 | | |
| 8,200.0 | 5,675.0 | 8,237.0 | 5,658.3 | 54.7 | 52.5 | -88.24 | -2,747.5 | 1,341.9 | 637.0 | 531.4 | 105.55 | 6.035 | | |
| 8,268.7 | 5,675.0 | 8,294.8 | 5,657.9 | 55.9 | 53.5 | -88.20 | -2,805.3 | 1,341.3 | 636.3 | 528.5 | 107.82 | 5.902 | | |
| 8,300.0 | 5,675.0 | 8,319.9 | 5,657.8 | 56.5 | 53.9 | -88.19 | -2,830.4 | 1,341.4 | 636.4 | 527.6 | 108.82 | 5.849 | | |
| 8,400.0 | 5,675.0 | 8,429.9 | 5,658.4 | 58.2 | 55.9 | -88.25 | -2,940.3 | 1,342.6 | 637.6 | 525.0 | 112.60 | 5.663 | | |
| 8,500.0 | 5,675.0 | 8,538.0 | 5,657.2 | 60.0 | 57.8 | -88.13 | -3,048.4 | 1,340.9 | 636.0 | 519.7 | 116.31 | 5.468 | | |
| 8,600.0 | 5,675.0 | 8,655.5 | 5,657.7 | 61.8 | 59.7 | -88.17 | -3,165.8 | 1,336.5 | 632.2 | 512.0 | 120.13 | 5.263 | | |
| 8,700.0 | 5,675.0 | 8,743.0 | 5,660.4 | 63.6 | 61.2 | -88.41 | -3,253.2 | 1,333.2 | 628.3 | 504.9 | 123.48 | 5.088 | | |
| 8,763.5 | 5,675.0 | 8,789.9 | 5,662.3 | 64.8 | 62.0 | -88.58 | -3,300.1 | 1,332.5 | 627.4 | 501.9 | 125.48 | 5.000 | | |
| 8,800.0 | 5,675.0 | 8,819.1 | 5,663.3 | 65.5 | 62.6 | -88.67 | -3,329.3 | 1,332.8 | 627.7 | 501.0 | 126.67 | 4.955 | | |
| 8,900.0 | 5,675.0 | 8,907.4 | 5,664.9 | 67.3 | 64.1 | -88.82 | -3,417.5 | 1,334.7 | 629.8 | 499.7 | 130.11 | 4.840 | | |
| 9,000.0 | 5,675.0 | 9,003.6 | 5,664.6 | 69.1 | 65.9 | -88.80 | -3,513.6 | 1,337.8 | 633.0 | 499.4 | 133.69 | 4.735 | | |
| 9,100.0 | 5,675.0 | 9,092.0 | 5,663.9 | 70.9 | 67.4 | -88.74 | -3,602.0 | 1,342.1 | 637.9 | 500.8 | 137.12 | 4.652 | | |
| 9,200.0 | 5,675.0 | 9,208.1 | 5,663.6 | 72.8 | 69.5 | -88.73 | -3,717.9 | 1,347.7 | 642.8 | 501.7 | 141.04 | 4.557 | | |
| 9,300.0 | 5,675.0 | 9,311.1 | 5,663.8 | 74.6 | 71.3 | -88.75 | -3,820.9 | 1,349.5 | 644.5 | 499.8 | 144.69 | 4.455 | | |
| 9,400.0 | 5,675.0 | 9,408.8 | 5,664.2 | 76.5 | 73.0 | -88.78 | -3,918.5 | 1,351.0 | 646.1 | 497.8 | 148.30 | 4.356 | | |

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

| | | | |
|---------------------------|-------------------------------|-------------------------------------|--|
| Company: | Whiting Petroleum Corporation | Local Co-ordinate Reference: | Well Razor #26L-3504B |
| Project: | Weld County, CO | TVD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Reference Site: | S26-T10N-R58W | MD Reference: | WELL @ 4751.0usft (Original Well Elev) |
| Site Error: | 0.0usft | North Reference: | Grid |
| Reference Well: | Razor #26L-3504B | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.0usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | HZ | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | Plan #2 | Offset TVD Reference: | Offset Datum |

| Offset Design S26-T10N-R58W - Razor 26-3524H (Existing) - Existing - SURVEYS | | | | | | | | | | | Offset Site Error: 0.0 usft | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|-----------------------------|---------|-------------------|
| Survey Program: 113-ISCWSA MWD | | | | | | | | | | | Offset Well Error: 0.0 usft | | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Total Uncertainty Axis | | Separation Factor |
| 9,500.0 | 5,675.0 | 9,510.7 | 5,664.4 | 78.3 | 74.8 | -88.81 | -4,020.4 | 1,353.7 | 648.7 | 496.7 | 151.99 | 4.268 | |
| 9,600.0 | 5,675.0 | 9,607.0 | 5,663.3 | 80.2 | 76.5 | -88.71 | -4,116.7 | 1,356.2 | 651.4 | 495.8 | 155.55 | 4.188 | |
| 9,700.0 | 5,675.0 | 9,709.0 | 5,662.6 | 82.0 | 78.3 | -88.66 | -4,218.6 | 1,360.1 | 655.2 | 496.0 | 159.23 | 4.115 | |
| 9,800.0 | 5,675.0 | 9,809.2 | 5,663.4 | 83.9 | 80.1 | -88.74 | -4,318.8 | 1,362.7 | 657.8 | 494.9 | 162.87 | 4.039 | |
| 9,900.0 | 5,675.0 | 9,935.1 | 5,663.8 | 85.7 | 82.3 | -88.78 | -4,444.6 | 1,364.8 | 659.7 | 492.8 | 166.96 | 3.951 | |
| 10,000.0 | 5,675.0 | 10,028.3 | 5,664.3 | 87.6 | 83.9 | -88.81 | -4,537.8 | 1,363.4 | 658.3 | 487.8 | 170.50 | 3.861 | |
| 10,005.0 | 5,675.0 | 10,032.0 | 5,664.2 | 87.7 | 84.0 | -88.81 | -4,541.5 | 1,363.4 | 658.3 | 487.6 | 170.66 | 3.857 | |
| 10,100.0 | 5,675.0 | 10,122.9 | 5,666.2 | 89.4 | 85.6 | -88.98 | -4,632.4 | 1,363.9 | 658.7 | 484.7 | 174.03 | 3.785 | |
| 10,200.0 | 5,675.0 | 10,241.1 | 5,667.8 | 91.3 | 87.7 | -89.12 | -4,750.5 | 1,361.7 | 656.7 | 478.7 | 178.02 | 3.689 | |
| 10,250.0 | 5,675.0 | 10,277.1 | 5,667.8 | 92.2 | 88.3 | -89.12 | -4,786.5 | 1,361.2 | 656.0 | 476.4 | 179.60 | 3.653 | |
| 10,300.0 | 5,675.0 | 10,305.3 | 5,668.1 | 93.2 | 88.8 | -89.14 | -4,814.7 | 1,361.8 | 657.0 | 475.9 | 181.04 | 3.629 | |
| 10,400.0 | 5,675.0 | 10,408.0 | 5,669.0 | 95.1 | 90.6 | -89.23 | -4,917.3 | 1,365.0 | 660.1 | 475.3 | 184.75 | 3.573 | |
| 10,500.0 | 5,675.0 | 10,459.0 | 5,669.3 | 96.9 | 91.5 | -89.26 | -4,968.2 | 1,368.7 | 667.0 | 479.4 | 187.54 | 3.556 | |
| 10,600.0 | 5,675.0 | 10,576.0 | 5,669.3 | 98.8 | 93.6 | -89.28 | -5,084.6 | 1,380.9 | 677.7 | 486.2 | 191.53 | 3.538 | |
| 10,700.0 | 5,675.0 | 10,682.5 | 5,666.4 | 100.7 | 95.5 | -89.04 | -5,190.8 | 1,387.9 | 684.3 | 489.0 | 195.33 | 3.503 | |
| 10,800.0 | 5,675.0 | 10,801.0 | 5,664.9 | 102.5 | 97.6 | -88.92 | -5,309.0 | 1,394.7 | 690.1 | 490.8 | 199.27 | 3.463 | |
| 10,900.0 | 5,675.0 | 10,906.5 | 5,664.5 | 104.4 | 99.5 | -88.90 | -5,414.5 | 1,398.4 | 693.6 | 490.5 | 203.07 | 3.416 | |
| 11,000.0 | 5,675.0 | 11,015.0 | 5,663.3 | 106.3 | 101.4 | -88.80 | -5,522.9 | 1,401.2 | 696.2 | 489.4 | 206.88 | 3.365 | |
| 11,100.0 | 5,675.0 | 11,101.0 | 5,664.3 | 108.2 | 102.9 | -88.89 | -5,608.9 | 1,403.4 | 698.9 | 488.6 | 210.30 | 3.323 | |
| 11,200.0 | 5,675.0 | 11,223.5 | 5,666.2 | 110.1 | 105.1 | -89.05 | -5,731.2 | 1,407.9 | 702.8 | 488.4 | 214.38 | 3.278 | |
| 11,300.0 | 5,675.0 | 11,337.1 | 5,667.9 | 111.9 | 107.1 | -89.19 | -5,844.9 | 1,408.3 | 703.2 | 484.9 | 218.28 | 3.222 | |
| 11,400.0 | 5,675.0 | 11,433.9 | 5,670.9 | 113.8 | 108.9 | -89.43 | -5,941.5 | 1,407.0 | 701.8 | 479.9 | 221.91 | 3.163 | |
| 11,500.0 | 5,675.0 | 11,535.0 | 5,670.7 | 115.7 | 110.7 | -89.42 | -6,042.6 | 1,405.8 | 700.7 | 475.0 | 225.62 | 3.106 | |
| 11,546.0 | 5,675.0 | 11,576.0 | 5,671.7 | 116.6 | 111.4 | -89.49 | -6,083.6 | 1,405.6 | 700.4 | 473.2 | 227.20 | 3.083 | |
| 11,600.0 | 5,675.0 | 11,627.7 | 5,673.6 | 117.6 | 112.3 | -89.65 | -6,135.3 | 1,405.8 | 700.6 | 471.5 | 229.13 | 3.058 | |
| 11,700.0 | 5,675.0 | 11,718.1 | 5,676.1 | 119.5 | 113.9 | -89.85 | -6,225.7 | 1,406.3 | 701.2 | 468.5 | 232.64 | 3.014 | |
| 11,800.0 | 5,675.0 | 11,839.3 | 5,682.2 | 121.4 | 116.0 | -90.35 | -6,346.6 | 1,406.9 | 701.8 | 465.2 | 236.63 | 2.966 | |
| 11,900.0 | 5,675.0 | 11,946.9 | 5,690.4 | 123.3 | 117.9 | -91.02 | -6,454.0 | 1,404.6 | 699.8 | 459.4 | 240.37 | 2.911 | |
| 12,000.0 | 5,675.0 | 12,041.0 | 5,695.7 | 125.2 | 119.6 | -91.46 | -6,547.8 | 1,402.4 | 697.5 | 453.6 | 243.91 | 2.860 | |
| 12,100.0 | 5,675.0 | 12,143.7 | 5,697.4 | 127.1 | 121.4 | -91.60 | -6,650.5 | 1,401.0 | 696.3 | 448.6 | 247.64 | 2.812 | |
| 12,200.0 | 5,675.0 | 12,236.9 | 5,696.9 | 128.9 | 123.1 | -91.57 | -6,743.7 | 1,399.7 | 694.8 | 443.6 | 251.21 | 2.766 | |
| 12,223.4 | 5,675.0 | 12,252.9 | 5,696.8 | 129.4 | 123.4 | -91.56 | -6,759.7 | 1,399.6 | 694.7 | 442.7 | 251.94 | 2.757 | |
| 12,300.0 | 5,675.0 | 12,334.0 | 5,696.1 | 130.8 | 124.8 | -91.50 | -6,840.8 | 1,399.6 | 694.7 | 439.9 | 254.86 | 2.726 | |
| 12,317.3 | 5,675.0 | 12,353.2 | 5,695.8 | 131.2 | 125.2 | -91.48 | -6,860.0 | 1,399.5 | 694.6 | 439.1 | 255.53 | 2.718 | ES |
| 12,400.0 | 5,675.0 | 12,355.0 | 5,695.8 | 132.7 | 125.2 | -91.48 | -6,861.8 | 1,399.5 | 698.6 | 441.4 | 257.14 | 2.717 | SF |
| 12,429.3 | 5,675.0 | 12,355.0 | 5,695.8 | 133.3 | 125.2 | -91.48 | -6,861.8 | 1,399.5 | 702.3 | 444.6 | 257.70 | 2.725 | |

Company: Whiting Petroleum Corporation
Project: Weld County, CO
Reference Site: S26-T10N-R58W
Site Error: 0.0usft
Reference Well: Razor #26L-3504B
Well Error: 0.0usft
Reference Wellbore: HZ
Reference Design: Plan #2

Local Co-ordinate Reference: Well Razor #26L-3504B
TVD Reference: WELL @ 4751.0usft (Original Well Elev)
MD Reference: WELL @ 4751.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: USA EDM 5000 Multi Users DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 4751.0usft (Original Well Elev)
 Offset Depths are relative to Offset Datum
 Central Meridian is 105° 30' 0.000 W °

Coordinates are relative to: Razor #26L-3504B
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 1.07°

