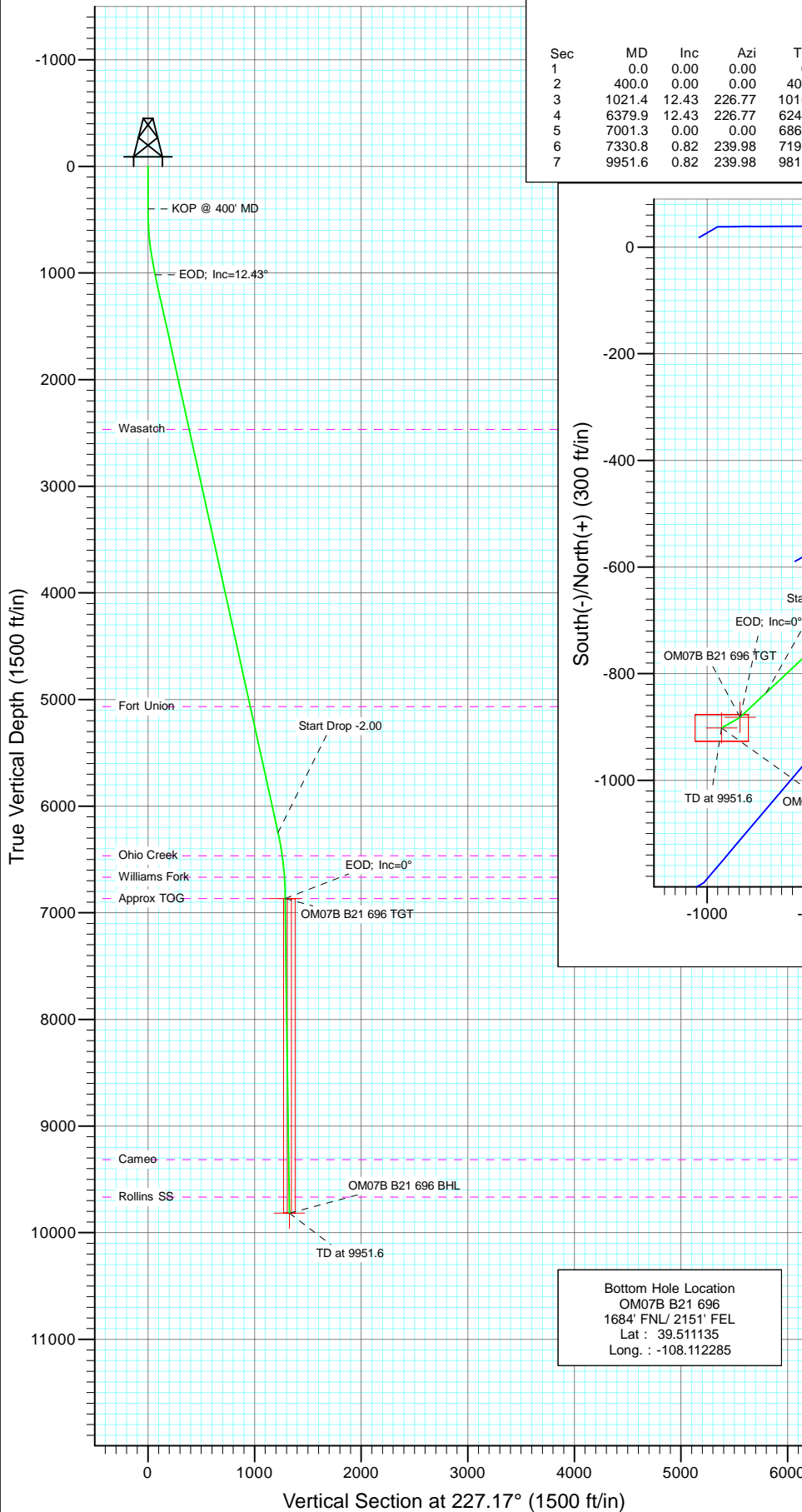
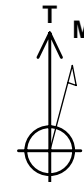
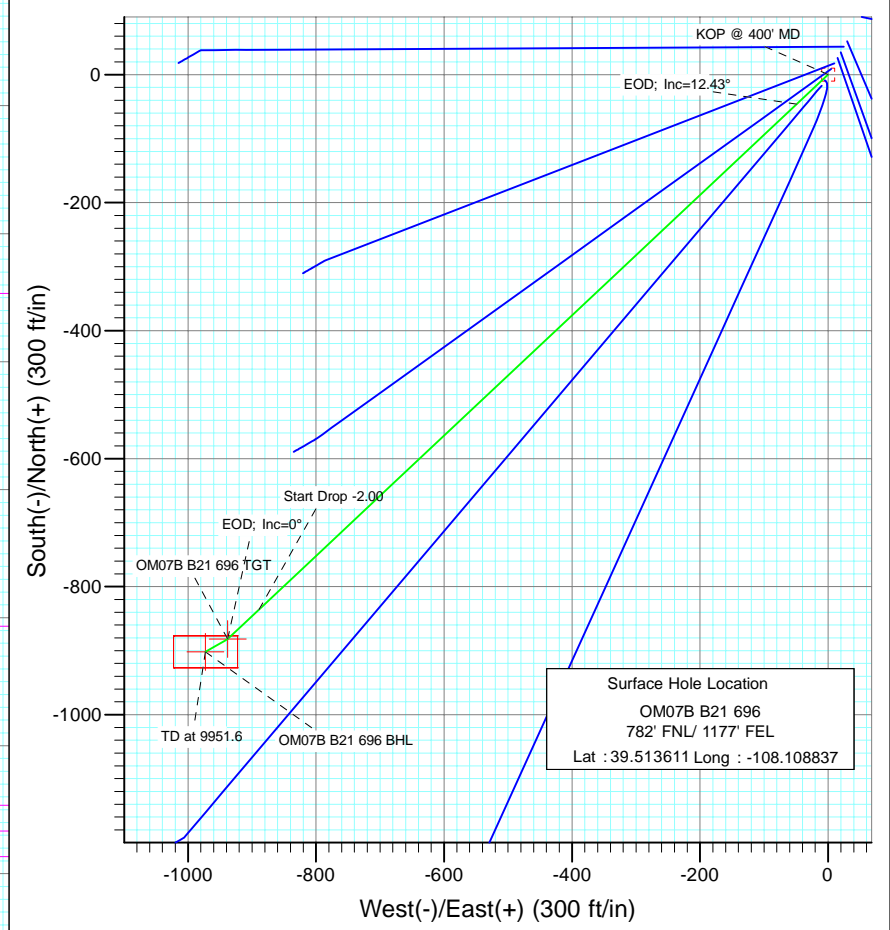


Project: Garfield County  
Site: NENE S21-T6S-R96W (B21 696 Pad)  
Well: OM07B B21 696  
Wellbore: DD  
Design: Plan #1



| SECTION DETAILS |        |       |        |        |        |        |      |        |        |                   |
|-----------------|--------|-------|--------|--------|--------|--------|------|--------|--------|-------------------|
| Sec             | MD     | Inc   | Azi    | TVD    | +N/-S  | +E/-W  | Dleg | TFace  | VSec   | Target            |
| 1               | 0.0    | 0.00  | 0.00   | 0.0    | 0.0    | 0.0    | 0.00 | 0.00   | 0.0    |                   |
| 2               | 400.0  | 0.00  | 0.00   | 400.0  | 0.0    | 0.0    | 0.00 | 0.00   | 0.0    |                   |
| 3               | 1021.4 | 12.43 | 226.77 | 1016.6 | -46.0  | -48.9  | 2.00 | 226.77 | 67.1   |                   |
| 4               | 6379.9 | 12.43 | 226.77 | 6249.4 | -835.8 | -889.2 | 0.00 | 0.00   | 1220.4 |                   |
| 5               | 7001.3 | 0.00  | 0.00   | 6866.0 | -881.8 | -938.2 | 2.00 | 180.00 | 1287.5 | OM07B B21 696 TGT |
| 6               | 7330.8 | 0.82  | 239.98 | 7195.5 | -883.0 | -940.2 | 0.25 | 239.98 | 1289.8 |                   |
| 7               | 9951.6 | 0.82  | 239.98 | 9816.0 | -901.8 | -972.8 | 0.00 | 0.00   | 1326.5 | OM07B B21 696 BHL |



Azimuths to True North  
Magnetic North: 10.45°

Magnetic Field  
Strength: 52312.3snT  
Dip Angle: 65.76°  
Date: 11/30/2010  
Model: IGRF200510

#### FORMATION TOP DETAILS

| TVDPath | MDPath | Formation     |
|---------|--------|---------------|
| 2466.0  | 2505.6 | Wasatch       |
| 5066.0  | 5168.0 | Fort Union    |
| 6466.0  | 6600.0 | Ohio Creek    |
| 6666.0  | 6801.1 | Williams Fork |
| 6866.0  | 7001.3 | Approx TOG    |
| 9316.0  | 9451.5 | Cameo         |
| 9666.0  | 9801.6 | Rollins SS    |

#### DESIGN DETAILS: Plan #1

1055XX; BH  
KBE @ 8293.0ft (Original Well Elev)

| Target            | Azimuth | Origin | N/S | E/W | From TVD |
|-------------------|---------|--------|-----|-----|----------|
| OM07B B21 696 BHL | 227.17  | Slot   | 0.0 | 0.0 | 0.0      |

# Cathedral Energy Services

## Planning Report

|                  |                                  |                                     |                                     |
|------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Database:</b> | EDM 5000.1 US Multi Users DB     | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Company:</b>  | Berry Petroleum Company (NAD 83) | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Project:</b>  | Garfield County                  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site:</b>     | NENE S21-T6S-R96W (B21 696 Pad)  | <b>North Reference:</b>             | True                                |
| <b>Well:</b>     | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Wellbore:</b> | DD                               |                                     |                                     |
| <b>Design:</b>   | Plan #1                          |                                     |                                     |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Garfield County           |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | Colorado Central Zone     |                      |                |

|                       |          |                                 |                 |                   |             |
|-----------------------|----------|---------------------------------|-----------------|-------------------|-------------|
| Site                  |          | NENE S21-T6S-R96W (B21 696 Pad) |                 |                   |             |
| Site Position:        |          | Northing:                       | 1,622,587.75 ft | Latitude:         | 39.513778   |
| From:                 | Lat/Long | Easting:                        | 2,264,263.59 ft | Longitude:        | -108.108174 |
| Position Uncertainty: | 0.0 ft   | Slot Radius:                    | 13.200 in       | Grid Convergence: | -1.64 °     |

|                      |               |        |                     |                 |               |             |
|----------------------|---------------|--------|---------------------|-----------------|---------------|-------------|
| Well                 | OM07B B21 696 |        |                     |                 |               |             |
| Well Position        | +N/-S         | 0.0 ft | Northing:           | 1,622,532.31 ft | Latitude:     | 39.513611   |
|                      | +E/-W         | 0.0 ft | Easting:            | 2,264,074.87 ft | Longitude:    | -108.108837 |
| Position Uncertainty |               | 0.0 ft | Wellhead Elevation: | ft              | Ground Level: | 8,278.0 ft  |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | DD                |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 11/30/2010         | 10.45                  | 65.76                | 52,312                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #1                      |                   |                      |                      |
| <b>Audit Notes:</b>      |                              |                   |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                | PLAN              | <b>Tie On Depth:</b> | 0.0                  |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b>    | <b>Direction (°)</b> |
|                          | 0.0                          | 0.0               | 0.0                  | 227.17               |

| <b>Plan Sections</b> |                 |             |                     |            |            |                       |                      |                     |         |                   |
|----------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-------------------|
| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target            |
| 0.0                  | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 400.0                | 0.00            | 0.00        | 400.0               | 0.0        | 0.0        | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 1,021.4              | 12.43           | 226.77      | 1,016.6             | -46.0      | -48.9      | 2.00                  | 2.00                 | 0.00                | 226.77  |                   |
| 6,379.9              | 12.43           | 226.77      | 6,249.4             | -835.8     | -889.2     | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 7,001.3              | 0.00            | 0.00        | 6,866.0             | -881.8     | -938.2     | 2.00                  | -2.00                | 0.00                | 180.00  | OM07B B21 696 TGT |
| 7,330.8              | 0.82            | 239.98      | 7,195.5             | -883.0     | -940.2     | 0.25                  | 0.25                 | -36.43              | 239.98  |                   |
| 9,951.6              | 0.82            | 239.98      | 9,816.0             | -901.8     | -972.8     | 0.00                  | 0.00                 | 0.00                | 0.00    | OM07B B21 696 BHL |

# Cathedral Energy Services

## Planning Report

|                  |                                  |                                     |                                     |
|------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Database:</b> | EDM 5000.1 US Multi Users DB     | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Company:</b>  | Berry Petroleum Company (NAD 83) | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Project:</b>  | Garfield County                  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site:</b>     | NENE S21-T6S-R96W (B21 696 Pad)  | <b>North Reference:</b>             | True                                |
| <b>Well:</b>     | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Wellbore:</b> | DD                               |                                     |                                     |
| <b>Design:</b>   | Plan #1                          |                                     |                                     |

### Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| 0.0                 | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 30.0                | 0.00            | 0.00        | 30.0                | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 60.0                | 0.00            | 0.00        | 60.0                | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 90.0                | 0.00            | 0.00        | 90.0                | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 120.0               | 0.00            | 0.00        | 120.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 150.0               | 0.00            | 0.00        | 150.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 180.0               | 0.00            | 0.00        | 180.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 210.0               | 0.00            | 0.00        | 210.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 240.0               | 0.00            | 0.00        | 240.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 270.0               | 0.00            | 0.00        | 270.0               | 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                 |                       |
| 330.0               | 0.00            | 0.00        | 330.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 360.0               | 0.00            | 0.00        | 360.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 390.0               | 0.00            | 0.00        | 390.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 400.0               | 0.00            | 0.00        | 400.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | KOP @ 400' MD         |
| 420.0               | 0.40            | 226.77      | 420.0               | 0.0        | -0.1       | 0.1                   | 2.00                  | 2.00                 |                       |
| 450.0               | 1.00            | 226.77      | 450.0               | -0.3       | -0.3       | 0.4                   | 2.00                  | 2.00                 |                       |
| 480.0               | 1.60            | 226.77      | 480.0               | -0.8       | -0.8       | 1.1                   | 2.00                  | 2.00                 |                       |
| 510.0               | 2.20            | 226.77      | 510.0               | -1.4       | -1.5       | 2.1                   | 2.00                  | 2.00                 |                       |
| 540.0               | 2.80            | 226.77      | 539.9               | -2.3       | -2.5       | 3.4                   | 2.00                  | 2.00                 |                       |
| 570.0               | 3.40            | 226.77      | 569.9               | -3.5       | -3.7       | 5.0                   | 2.00                  | 2.00                 |                       |
| 600.0               | 4.00            | 226.77      | 599.8               | -4.8       | -5.1       | 7.0                   | 2.00                  | 2.00                 |                       |
| 630.0               | 4.60            | 226.77      | 629.8               | -6.3       | -6.7       | 9.2                   | 2.00                  | 2.00                 |                       |
| 660.0               | 5.20            | 226.77      | 659.6               | -8.1       | -8.6       | 11.8                  | 2.00                  | 2.00                 |                       |
| 690.0               | 5.80            | 226.77      | 689.5               | -10.0      | -10.7      | 14.7                  | 2.00                  | 2.00                 |                       |
| 720.0               | 6.40            | 226.77      | 719.3               | -12.2      | -13.0      | 17.9                  | 2.00                  | 2.00                 |                       |
| 750.0               | 7.00            | 226.77      | 749.1               | -14.6      | -15.6      | 21.4                  | 2.00                  | 2.00                 |                       |
| 780.0               | 7.60            | 226.77      | 778.9               | -17.2      | -18.3      | 25.2                  | 2.00                  | 2.00                 |                       |
| 810.0               | 8.20            | 226.77      | 808.6               | -20.1      | -21.3      | 29.3                  | 2.00                  | 2.00                 |                       |
| 840.0               | 8.80            | 226.77      | 838.3               | -23.1      | -24.6      | 33.7                  | 2.00                  | 2.00                 |                       |
| 870.0               | 9.40            | 226.77      | 867.9               | -26.3      | -28.0      | 38.5                  | 2.00                  | 2.00                 |                       |
| 900.0               | 10.00           | 226.77      | 897.5               | -29.8      | -31.7      | 43.5                  | 2.00                  | 2.00                 |                       |
| 930.0               | 10.60           | 226.77      | 927.0               | -33.5      | -35.6      | 48.9                  | 2.00                  | 2.00                 |                       |
| 960.0               | 11.20           | 226.77      | 956.4               | -37.4      | -39.8      | 54.6                  | 2.00                  | 2.00                 |                       |
| 990.0               | 11.80           | 226.77      | 985.8               | -41.5      | -44.1      | 60.5                  | 2.00                  | 2.00                 |                       |
| 1,020.0             | 12.40           | 226.77      | 1,015.2             | -45.8      | -48.7      | 66.8                  | 2.00                  | 2.00                 |                       |
| 1,021.4             | 12.43           | 226.77      | 1,016.6             | -46.0      | -48.9      | 67.1                  | 2.00                  | 2.00                 | EOD; Inc=12.43°       |
| 1,050.0             | 12.43           | 226.77      | 1,044.5             | -50.2      | -53.4      | 73.3                  | 0.00                  | 0.00                 |                       |
| 1,080.0             | 12.43           | 226.77      | 1,073.8             | -54.6      | -58.1      | 79.7                  | 0.00                  | 0.00                 |                       |
| 1,110.0             | 12.43           | 226.77      | 1,103.1             | -59.0      | -62.8      | 86.2                  | 0.00                  | 0.00                 |                       |
| 1,140.0             | 12.43           | 226.77      | 1,132.4             | -63.5      | -67.5      | 92.7                  | 0.00                  | 0.00                 |                       |
| 1,170.0             | 12.43           | 226.77      | 1,161.7             | -67.9      | -72.2      | 99.1                  | 0.00                  | 0.00                 |                       |
| 1,200.0             | 12.43           | 226.77      | 1,191.0             | -72.3      | -76.9      | 105.6                 | 0.00                  | 0.00                 |                       |
| 1,230.0             | 12.43           | 226.77      | 1,220.3             | -76.7      | -81.6      | 112.0                 | 0.00                  | 0.00                 |                       |
| 1,260.0             | 12.43           | 226.77      | 1,249.5             | -81.1      | -86.3      | 118.5                 | 0.00                  | 0.00                 |                       |
| 1,290.0             | 12.43           | 226.77      | 1,278.8             | -85.6      | -91.0      | 124.9                 | 0.00                  | 0.00                 |                       |
| 1,320.0             | 12.43           | 226.77      | 1,308.1             | -90.0      | -95.7      | 131.4                 | 0.00                  | 0.00                 |                       |
| 1,350.0             | 12.43           | 226.77      | 1,337.4             | -94.4      | -100.4     | 137.8                 | 0.00                  | 0.00                 |                       |
| 1,380.0             | 12.43           | 226.77      | 1,366.7             | -98.8      | -105.2     | 144.3                 | 0.00                  | 0.00                 |                       |
| 1,410.0             | 12.43           | 226.77      | 1,396.0             | -103.3     | -109.9     | 150.8                 | 0.00                  | 0.00                 |                       |
| 1,440.0             | 12.43           | 226.77      | 1,425.3             | -107.7     | -114.6     | 157.2                 | 0.00                  | 0.00                 |                       |
| 1,470.0             | 12.43           | 226.77      | 1,454.6             | -112.1     | -119.3     | 163.7                 | 0.00                  | 0.00                 |                       |

# Cathedral Energy Services

## Planning Report

|                  |                                  |                                     |                                     |
|------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Database:</b> | EDM 5000.1 US Multi Users DB     | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Company:</b>  | Berry Petroleum Company (NAD 83) | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Project:</b>  | Garfield County                  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site:</b>     | NENE S21-T6S-R96W (B21 696 Pad)  | <b>North Reference:</b>             | True                                |
| <b>Well:</b>     | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Wellbore:</b> | DD                               |                                     |                                     |
| <b>Design:</b>   | Plan #1                          |                                     |                                     |

### Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| 1,500.0             | 12.43           | 226.77      | 1,483.9             | -116.5     | -124.0     | 170.1                 | 0.00                  | 0.00                 |                       |
| 1,530.0             | 12.43           | 226.77      | 1,513.2             | -120.9     | -128.7     | 176.6                 | 0.00                  | 0.00                 |                       |
| 1,560.0             | 12.43           | 226.77      | 1,542.5             | -125.4     | -133.4     | 183.0                 | 0.00                  | 0.00                 |                       |
| 1,590.0             | 12.43           | 226.77      | 1,571.8             | -129.8     | -138.1     | 189.5                 | 0.00                  | 0.00                 |                       |
| 1,620.0             | 12.43           | 226.77      | 1,601.1             | -134.2     | -142.8     | 196.0                 | 0.00                  | 0.00                 |                       |
| 1,650.0             | 12.43           | 226.77      | 1,630.4             | -138.6     | -147.5     | 202.4                 | 0.00                  | 0.00                 |                       |
| 1,680.0             | 12.43           | 226.77      | 1,659.7             | -143.1     | -152.2     | 208.9                 | 0.00                  | 0.00                 |                       |
| 1,710.0             | 12.43           | 226.77      | 1,689.0             | -147.5     | -156.9     | 215.3                 | 0.00                  | 0.00                 |                       |
| 1,740.0             | 12.43           | 226.77      | 1,718.3             | -151.9     | -161.6     | 221.8                 | 0.00                  | 0.00                 |                       |
| 1,770.0             | 12.43           | 226.77      | 1,747.6             | -156.3     | -166.3     | 228.2                 | 0.00                  | 0.00                 |                       |
| 1,800.0             | 12.43           | 226.77      | 1,776.9             | -160.7     | -171.0     | 234.7                 | 0.00                  | 0.00                 |                       |
| 1,830.0             | 12.43           | 226.77      | 1,806.2             | -165.2     | -175.7     | 241.2                 | 0.00                  | 0.00                 |                       |
| 1,860.0             | 12.43           | 226.77      | 1,835.5             | -169.6     | -180.4     | 247.6                 | 0.00                  | 0.00                 |                       |
| 1,890.0             | 12.43           | 226.77      | 1,864.8             | -174.0     | -185.1     | 254.1                 | 0.00                  | 0.00                 |                       |
| 1,920.0             | 12.43           | 226.77      | 1,894.1             | -178.4     | -189.8     | 260.5                 | 0.00                  | 0.00                 |                       |
| 1,950.0             | 12.43           | 226.77      | 1,923.4             | -182.9     | -194.5     | 267.0                 | 0.00                  | 0.00                 |                       |
| 1,980.0             | 12.43           | 226.77      | 1,952.7             | -187.3     | -199.2     | 273.4                 | 0.00                  | 0.00                 |                       |
| 2,010.0             | 12.43           | 226.77      | 1,982.0             | -191.7     | -203.9     | 279.9                 | 0.00                  | 0.00                 |                       |
| 2,040.0             | 12.43           | 226.77      | 2,011.3             | -196.1     | -208.7     | 286.3                 | 0.00                  | 0.00                 |                       |
| 2,070.0             | 12.43           | 226.77      | 2,040.6             | -200.5     | -213.4     | 292.8                 | 0.00                  | 0.00                 |                       |
| 2,100.0             | 12.43           | 226.77      | 2,069.9             | -205.0     | -218.1     | 299.3                 | 0.00                  | 0.00                 |                       |
| 2,130.0             | 12.43           | 226.77      | 2,099.2             | -209.4     | -222.8     | 305.7                 | 0.00                  | 0.00                 |                       |
| 2,160.0             | 12.43           | 226.77      | 2,128.5             | -213.8     | -227.5     | 312.2                 | 0.00                  | 0.00                 |                       |
| 2,190.0             | 12.43           | 226.77      | 2,157.8             | -218.2     | -232.2     | 318.6                 | 0.00                  | 0.00                 |                       |
| 2,220.0             | 12.43           | 226.77      | 2,187.1             | -222.7     | -236.9     | 325.1                 | 0.00                  | 0.00                 |                       |
| 2,250.0             | 12.43           | 226.77      | 2,216.3             | -227.1     | -241.6     | 331.5                 | 0.00                  | 0.00                 |                       |
| 2,280.0             | 12.43           | 226.77      | 2,245.6             | -231.5     | -246.3     | 338.0                 | 0.00                  | 0.00                 |                       |
| 2,310.0             | 12.43           | 226.77      | 2,274.9             | -235.9     | -251.0     | 344.5                 | 0.00                  | 0.00                 |                       |
| 2,340.0             | 12.43           | 226.77      | 2,304.2             | -240.3     | -255.7     | 350.9                 | 0.00                  | 0.00                 |                       |
| 2,370.0             | 12.43           | 226.77      | 2,333.5             | -244.8     | -260.4     | 357.4                 | 0.00                  | 0.00                 |                       |
| 2,400.0             | 12.43           | 226.77      | 2,362.8             | -249.2     | -265.1     | 363.8                 | 0.00                  | 0.00                 |                       |
| 2,430.0             | 12.43           | 226.77      | 2,392.1             | -253.6     | -269.8     | 370.3                 | 0.00                  | 0.00                 |                       |
| 2,460.0             | 12.43           | 226.77      | 2,421.4             | -258.0     | -274.5     | 376.7                 | 0.00                  | 0.00                 |                       |
| 2,490.0             | 12.43           | 226.77      | 2,450.7             | -262.4     | -279.2     | 383.2                 | 0.00                  | 0.00                 |                       |

### Targets

| Target Name   | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude  | Longitude   |
|---|---------------|--------------|----------|------------|------------|---------------|--------------|-----------|-------------|
| OM07B B21 696 TGT   | 0.00          | 0.00         | 6,866.0  | -881.8     | -938.2     | 1,621,677.81  | 2,263,111.78 | 39.511190 | -108.112162 |
| - hit/miss target   |               |              |          |            |            |               |              |           |             |
| - Shape   |               |              |          |            |            |               |              |           |             |
| - plan misses target center by 4506.9ft at 2490.0ft MD (2450.7 TVD, -262.4 N, -279.2 E) |               |              |          |            |            |               |              |           |             |
| - Point   |               |              |          |            |            |               |              |           |             |
| OM07B B21 696 BHL   | 0.00          | 0.00         | 9,816.0  | -901.8     | -972.8     | 1,621,658.78  | 2,263,076.55 | 39.511135 | -108.112285 |
| - plan misses target center by 7425.4ft at 2490.0ft MD (2450.7 TVD, -262.4 N, -279.2 E) |               |              |          |            |            |               |              |           |             |
| - Rectangle (sides W50.0 H100.0 D0.0)   |               |              |          |            |            |               |              |           |             |

# Cathedral Energy Services

## Planning Report

|                  |                                  |                                     |                                     |
|------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Database:</b> | EDM 5000.1 US Multi Users DB     | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Company:</b>  | Berry Petroleum Company (NAD 83) | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Project:</b>  | Garfield County                  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site:</b>     | NENE S21-T6S-R96W (B21 696 Pad)  | <b>North Reference:</b>             | True                                |
| <b>Well:</b>     | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Wellbore:</b> | DD                               |                                     |                                     |
| <b>Design:</b>   | Plan #1                          |                                     |                                     |

| Planned Survey      |                 |             |                     |            |            |                       |                       |                      |  |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations                      |
| 2,500.0             | 12.43           | 226.77      | 2,460.5             | -263.9     | -280.8     | 385.3                 | 0.00                  | 0.00                 |  |
| 2,505.6             | 12.43           | 226.77      | 2,466.0             | -264.8     | -281.7     | 386.6                 | 0.00                  | 0.00                 | Wasatch                                    |
| 2,600.0             | 12.43           | 226.77      | 2,558.1             | -278.7     | -296.5     | 406.9                 | 0.00                  | 0.00                 |  |
| 2,700.0             | 12.43           | 226.77      | 2,655.8             | -293.4     | -312.2     | 428.4                 | 0.00                  | 0.00                 |  |
| 2,800.0             | 12.43           | 226.77      | 2,753.5             | -308.1     | -327.8     | 449.9                 | 0.00                  | 0.00                 |  |
| 2,900.0             | 12.43           | 226.77      | 2,851.1             | -322.9     | -343.5     | 471.4                 | 0.00                  | 0.00                 |  |
| 3,000.0             | 12.43           | 226.77      | 2,948.8             | -337.6     | -359.2     | 493.0                 | 0.00                  | 0.00                 |  |
| 3,100.0             | 12.43           | 226.77      | 3,046.4             | -352.4     | -374.9     | 514.5                 | 0.00                  | 0.00                 |  |
| 3,200.0             | 12.43           | 226.77      | 3,144.1             | -367.1     | -390.6     | 536.0                 | 0.00                  | 0.00                 |  |
| 3,300.0             | 12.43           | 226.77      | 3,241.7             | -381.8     | -406.2     | 557.5                 | 0.00                  | 0.00                 |  |
| 3,400.0             | 12.43           | 226.77      | 3,339.4             | -396.6     | -421.9     | 579.0                 | 0.00                  | 0.00                 |  |
| 3,500.0             | 12.43           | 226.77      | 3,437.1             | -411.3     | -437.6     | 600.6                 | 0.00                  | 0.00                 |  |
| 3,600.0             | 12.43           | 226.77      | 3,534.7             | -426.1     | -453.3     | 622.1                 | 0.00                  | 0.00                 |  |
| 3,700.0             | 12.43           | 226.77      | 3,632.4             | -440.8     | -469.0     | 643.6                 | 0.00                  | 0.00                 |  |
| 3,800.0             | 12.43           | 226.77      | 3,730.0             | -455.5     | -484.7     | 665.1                 | 0.00                  | 0.00                 |  |
| 3,900.0             | 12.43           | 226.77      | 3,827.7             | -470.3     | -500.3     | 686.6                 | 0.00                  | 0.00                 |  |
| 4,000.0             | 12.43           | 226.77      | 3,925.3             | -485.0     | -516.0     | 708.2                 | 0.00                  | 0.00                 |  |
| 4,100.0             | 12.43           | 226.77      | 4,023.0             | -499.8     | -531.7     | 729.7                 | 0.00                  | 0.00                 |  |
| 4,200.0             | 12.43           | 226.77      | 4,120.7             | -514.5     | -547.4     | 751.2                 | 0.00                  | 0.00                 |  |
| 4,300.0             | 12.43           | 226.77      | 4,218.3             | -529.2     | -563.1     | 772.7                 | 0.00                  | 0.00                 |  |
| 4,400.0             | 12.43           | 226.77      | 4,316.0             | -544.0     | -578.7     | 794.3                 | 0.00                  | 0.00                 |  |
| 4,500.0             | 12.43           | 226.77      | 4,413.6             | -558.7     | -594.4     | 815.8                 | 0.00                  | 0.00                 |  |
| 4,600.0             | 12.43           | 226.77      | 4,511.3             | -573.5     | -610.1     | 837.3                 | 0.00                  | 0.00                 |  |
| 4,700.0             | 12.43           | 226.77      | 4,608.9             | -588.2     | -625.8     | 858.8                 | 0.00                  | 0.00                 |  |
| 4,800.0             | 12.43           | 226.77      | 4,706.6             | -602.9     | -641.5     | 880.3                 | 0.00                  | 0.00                 |  |
| 4,900.0             | 12.43           | 226.77      | 4,804.2             | -617.7     | -657.2     | 901.9                 | 0.00                  | 0.00                 |  |
| 5,000.0             | 12.43           | 226.77      | 4,901.9             | -632.4     | -672.8     | 923.4                 | 0.00                  | 0.00                 |  |
| 5,100.0             | 12.43           | 226.77      | 4,999.6             | -647.2     | -688.5     | 944.9                 | 0.00                  | 0.00                 |  |
| 5,168.0             | 12.43           | 226.77      | 5,066.0             | -657.2     | -699.2     | 959.5                 | 0.00                  | 0.00                 | Fort Union                                 |
| 5,200.0             | 12.43           | 226.77      | 5,097.2             | -661.9     | -704.2     | 966.4                 | 0.00                  | 0.00                 |  |
| 5,300.0             | 12.43           | 226.77      | 5,194.9             | -676.6     | -719.9     | 987.9                 | 0.00                  | 0.00                 |  |
| 5,400.0             | 12.43           | 226.77      | 5,292.5             | -691.4     | -735.6     | 1,009.5               | 0.00                  | 0.00                 |  |
| 5,500.0             | 12.43           | 226.77      | 5,390.2             | -706.1     | -751.3     | 1,031.0               | 0.00                  | 0.00                 |  |
| 5,600.0             | 12.43           | 226.77      | 5,487.8             | -720.9     | -766.9     | 1,052.5               | 0.00                  | 0.00                 |  |
| 5,700.0             | 12.43           | 226.77      | 5,585.5             | -735.6     | -782.6     | 1,074.0               | 0.00                  | 0.00                 |  |
| 5,800.0             | 12.43           | 226.77      | 5,683.2             | -750.3     | -798.3     | 1,095.6               | 0.00                  | 0.00                 |  |
| 5,900.0             | 12.43           | 226.77      | 5,780.8             | -765.1     | -814.0     | 1,117.1               | 0.00                  | 0.00                 |  |
| 6,000.0             | 12.43           | 226.77      | 5,878.5             | -779.8     | -829.7     | 1,138.6               | 0.00                  | 0.00                 |  |
| 6,100.0             | 12.43           | 226.77      | 5,976.1             | -794.6     | -845.3     | 1,160.1               | 0.00                  | 0.00                 |  |
| 6,200.0             | 12.43           | 226.77      | 6,073.8             | -809.3     | -861.0     | 1,181.6               | 0.00                  | 0.00                 |  |
| 6,300.0             | 12.43           | 226.77      | 6,171.4             | -824.0     | -876.7     | 1,203.2               | 0.00                  | 0.00                 |  |
| 6,379.9             | 12.43           | 226.77      | 6,249.4             | -835.8     | -889.2     | 1,220.4               | 0.00                  | 0.00                 | Start Drop -2.00                           |
| 6,400.0             | 12.03           | 226.77      | 6,269.1             | -838.7     | -892.3     | 1,224.6               | 2.00                  | -2.00                |  |
| 6,500.0             | 10.03           | 226.77      | 6,367.3             | -851.8     | -906.3     | 1,243.7               | 2.00                  | -2.00                |  |
| 6,600.0             | 8.03            | 226.77      | 6,466.0             | -862.6     | -917.7     | 1,259.4               | 2.00                  | -2.00                | Ohio Creek                                 |
| 6,700.0             | 6.03            | 226.77      | 6,565.3             | -871.0     | -926.6     | 1,271.7               | 2.00                  | -2.00                |  |
| 6,800.0             | 4.03            | 226.77      | 6,664.9             | -877.0     | -933.0     | 1,280.4               | 2.00                  | -2.00                |  |
| 6,801.1             | 4.00            | 226.77      | 6,666.0             | -877.0     | -933.1     | 1,280.5               | 2.00                  | -2.00                | Williams Fork                              |
| 6,900.0             | 2.03            | 226.77      | 6,764.7             | -880.6     | -936.8     | 1,285.7               | 2.00                  | -2.00                |  |
| 7,000.0             | 0.03            | 226.77      | 6,864.7             | -881.8     | -938.1     | 1,287.5               | 2.00                  | -2.00                |  |
| 7,001.3             | 0.00            | 0.00        | 6,866.0             | -881.8     | -938.2     | 1,287.5               | 2.00                  | -2.00                | EOD; Inc=0° - Approx TOG - OM07B B21 696 1 |
| 7,100.0             | 0.25            | 239.98      | 6,964.7             | -881.9     | -938.3     | 1,287.7               | 0.25                  | 0.25                 |  |

# Cathedral Energy Services

## Planning Report

|                  |                                  |                                     |                                     |
|------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Database:</b> | EDM 5000.1 US Multi Users DB     | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Company:</b>  | Berry Petroleum Company (NAD 83) | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Project:</b>  | Garfield County                  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site:</b>     | NENE S21-T6S-R96W (B21 696 Pad)  | <b>North Reference:</b>             | True                                |
| <b>Well:</b>     | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Wellbore:</b> | DD                               |                                     |                                     |
| <b>Design:</b>   | Plan #1                          |                                     |                                     |

### Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| 7,200.0             | 0.50            | 239.98      | 7,064.7             | -882.2     | -938.9     | 1,288.3               | 0.25                  | 0.25                 |                       |
| 7,300.0             | 0.75            | 239.98      | 7,164.7             | -882.8     | -939.8     | 1,289.4               | 0.25                  | 0.25                 |                       |
| 7,330.8             | 0.82            | 239.98      | 7,195.5             | -883.0     | -940.2     | 1,289.8               | 0.25                  | 0.25                 |                       |
| 7,400.0             | 0.82            | 239.98      | 7,264.7             | -883.5     | -941.1     | 1,290.8               | 0.00                  | 0.00                 |                       |
| 7,500.0             | 0.82            | 239.98      | 7,364.7             | -884.2     | -942.3     | 1,292.2               | 0.00                  | 0.00                 |                       |
| 7,600.0             | 0.82            | 239.98      | 7,464.7             | -884.9     | -943.6     | 1,293.6               | 0.00                  | 0.00                 |                       |
| 7,700.0             | 0.82            | 239.98      | 7,564.7             | -885.6     | -944.8     | 1,295.0               | 0.00                  | 0.00                 |                       |
| 7,800.0             | 0.82            | 239.98      | 7,664.6             | -886.4     | -946.0     | 1,296.4               | 0.00                  | 0.00                 |                       |
| 7,900.0             | 0.82            | 239.98      | 7,764.6             | -887.1     | -947.3     | 1,297.8               | 0.00                  | 0.00                 |                       |
| 8,000.0             | 0.82            | 239.98      | 7,864.6             | -887.8     | -948.5     | 1,299.2               | 0.00                  | 0.00                 |                       |
| 8,100.0             | 0.82            | 239.98      | 7,964.6             | -888.5     | -949.8     | 1,300.6               | 0.00                  | 0.00                 |                       |
| 8,200.0             | 0.82            | 239.98      | 8,064.6             | -889.2     | -951.0     | 1,302.0               | 0.00                  | 0.00                 |                       |
| 8,300.0             | 0.82            | 239.98      | 8,164.6             | -890.0     | -952.3     | 1,303.4               | 0.00                  | 0.00                 |                       |
| 8,400.0             | 0.82            | 239.98      | 8,264.6             | -890.7     | -953.5     | 1,304.8               | 0.00                  | 0.00                 |                       |
| 8,500.0             | 0.82            | 239.98      | 8,364.6             | -891.4     | -954.8     | 1,306.2               | 0.00                  | 0.00                 |                       |
| 8,600.0             | 0.82            | 239.98      | 8,464.6             | -892.1     | -956.0     | 1,307.6               | 0.00                  | 0.00                 |                       |
| 8,700.0             | 0.82            | 239.98      | 8,564.6             | -892.8     | -957.2     | 1,309.0               | 0.00                  | 0.00                 |                       |
| 8,800.0             | 0.82            | 239.98      | 8,664.5             | -893.6     | -958.5     | 1,310.4               | 0.00                  | 0.00                 |                       |
| 8,900.0             | 0.82            | 239.98      | 8,764.5             | -894.3     | -959.7     | 1,311.8               | 0.00                  | 0.00                 |                       |
| 9,000.0             | 0.82            | 239.98      | 8,864.5             | -895.0     | -961.0     | 1,313.2               | 0.00                  | 0.00                 |                       |
| 9,100.0             | 0.82            | 239.98      | 8,964.5             | -895.7     | -962.2     | 1,314.6               | 0.00                  | 0.00                 |                       |
| 9,200.0             | 0.82            | 239.98      | 9,064.5             | -896.4     | -963.5     | 1,316.0               | 0.00                  | 0.00                 |                       |
| 9,300.0             | 0.82            | 239.98      | 9,164.5             | -897.1     | -964.7     | 1,317.4               | 0.00                  | 0.00                 |                       |
| 9,400.0             | 0.82            | 239.98      | 9,264.5             | -897.9     | -966.0     | 1,318.8               | 0.00                  | 0.00                 |                       |
| 9,451.5             | 0.82            | 239.98      | 9,316.0             | -898.2     | -966.6     | 1,319.5               | 0.00                  | 0.00                 | Cameo                 |
| 9,500.0             | 0.82            | 239.98      | 9,364.5             | -898.6     | -967.2     | 1,320.2               | 0.00                  | 0.00                 |                       |
| 9,600.0             | 0.82            | 239.98      | 9,464.5             | -899.3     | -968.4     | 1,321.6               | 0.00                  | 0.00                 |                       |
| 9,700.0             | 0.82            | 239.98      | 9,564.4             | -900.0     | -969.7     | 1,323.0               | 0.00                  | 0.00                 |                       |
| 9,800.0             | 0.82            | 239.98      | 9,664.4             | -900.7     | -970.9     | 1,324.4               | 0.00                  | 0.00                 |                       |
| 9,801.6             | 0.82            | 239.98      | 9,666.0             | -900.8     | -971.0     | 1,324.4               | 0.00                  | 0.00                 | Rollins SS            |
| 9,900.0             | 0.82            | 239.98      | 9,764.4             | -901.5     | -972.2     | 1,325.8               | 0.00                  | 0.00                 |                       |
| 9,951.6             | 0.82            | 239.98      | 9,816.0             | -901.8     | -972.8     | 1,326.5               | 0.00                  | 0.00                 | OM07B B21 696 BHL     |

### Targets

| Target Name   | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude  | Longitude   |
|---|---------------|--------------|----------|------------|------------|---------------|--------------|-----------|-------------|
| OM07B B21 696 TGT<br>- hit/miss target<br>- Shape<br>- Point                            | 0.00          | 0.00         | 6,866.0  | -881.8     | -938.2     | 1,621,677.81  | 2,263,111.78 | 39.511190 | -108.112162 |
| OM07B B21 696 BHL<br>- plan hits target center<br>- Rectangle (sides W50.0 H100.0 D0.0) | 0.00          | 0.00         | 9,816.0  | -901.8     | -972.8     | 1,621,658.78  | 2,263,076.55 | 39.511135 | -108.112285 |

# Cathedral Energy Services

## Planning Report

|                  |                                  |                                     |                                     |
|------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Database:</b> | EDM 5000.1 US Multi Users DB     | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Company:</b>  | Berry Petroleum Company (NAD 83) | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Project:</b>  | Garfield County                  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site:</b>     | NENE S21-T6S-R96W (B21 696 Pad)  | <b>North Reference:</b>             | True                                |
| <b>Well:</b>     | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Wellbore:</b> | DD                               |                                     |                                     |
| <b>Design:</b>   | Plan #1                          |                                     |                                     |

| Formations          |                     |               |           |         |                   |  |
|---------------------|---------------------|---------------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name          | Lithology | Dip (°) | Dip Direction (°) |  |
| 2,505.6             | 2,466.0             | Wasatch       |           | 0.00    |                   |  |
| 5,168.0             | 5,066.0             | Fort Union    |           | 0.00    |                   |  |
| 6,600.0             | 6,466.0             | Ohio Creek    |           | 0.00    |                   |  |
| 6,801.1             | 6,666.0             | Williams Fork |           | 0.00    |                   |  |
| 7,001.3             | 6,866.0             | Approx TOG    |           | 0.00    |                   |  |
| 9,451.5             | 9,316.0             | Cameo         |           | 0.00    |                   |  |
| 9,801.6             | 9,666.0             | Rollins SS    |           | 0.00    |                   |  |

| Plan Annotations    |                     |                   |            |                  |  |
|---------------------|---------------------|-------------------|------------|------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            |                  |  |
|                     |                     | +N/-S (ft)        | +E/-W (ft) | Comment          |  |
| 400.0               | 400.0               | 0.0               | 0.0        | KOP @ 400' MD    |  |
| 1,021.4             | 1,016.6             | -46.0             | -48.9      | EOD; Inc=12.43°  |  |
| 6,379.9             | 6,249.4             | -835.8            | -889.2     | Start Drop -2.00 |  |
| 7,001.3             | 6,866.0             | -881.8            | -938.2     | EOD; Inc=0°      |  |
| 9,951.6             | 9,816.0             | -901.8            | -972.8     | TD at 9951.6     |  |

# **Berry Petroleum Company (NAD 83)**

**Garfield County**

**NENE S21-T6S-R96W (B21 696 Pad)**

**OM07B B21 696**

**DD**

**Plan #1**

## **Anticollision Report**

**01 December, 2010**



# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

|                                     |   |                       |                     |
|-------------------------------------|---|-----------------------|---------------------|
| <b>Reference</b>                    | Plan #1   |                       |                     |
| <b>Filter type:</b>                 | NO GLOBAL FILTER: Using user defined selection & filtering criteria |                       |                     |
| <b>Interpolation Method:</b>        | MD Interval 100.0ft   | <b>Error Model:</b>   | Systematic Ellipse  |
| <b>Depth Range:</b>                 | Unlimited   | <b>Scan Method:</b>   | Closest Approach 3D |
| <b>Results Limited by:</b>          | Maximum center-center distance of 1,399.5ft                         | <b>Error Surface:</b> | Elliptical Conic    |
| <b>Warning Levels Evaluated at:</b> | 2.00 Sigma  |                       |                     |

|                            |                |                          |                  |                    |
|----------------------------|----------------|--------------------------|------------------|--------------------|
| <b>Survey Tool Program</b> | <b>Date</b>    | 12/1/2010                |                  |                    |
| <b>From (ft)</b>           | <b>To (ft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |
| 0.0                        | 9,951.6        | Plan #1 (DD)             | MWD              | Geolink MWD        |

|  |                                      |                                   |                                      |                                       |                          |                |
|--|--------------------------------------|-----------------------------------|--------------------------------------|---------------------------------------|--------------------------|----------------|
| <b>Summary</b>                         |                                      |                                   |                                      |                                       |                          |                |
| <b>Site Name</b>                       | <b>Reference Measured Depth (ft)</b> | <b>Offset Measured Depth (ft)</b> | <b>Distance Between Centres (ft)</b> | <b>Distance Between Ellipses (ft)</b> | <b>Separation Factor</b> | <b>Warning</b> |
| <b>Offset Well - Wellbore - Design</b> |                                      |                                   |                                      |                                       |                          |                |
| NENE S21-T6S-R96W (B21 696 Pad)        |                                      |                                   |                                      |                                       |                          |                |
| OM02B B21 696 - DD - Plan #1           | 813.1                                | 841.2                             | 171.1                                | 167.9                                 | 54.022                   | CC, ES         |
| OM02B B21 696 - DD - Plan #1           | 9,951.6                              | 9,952.8                           | 1,223.3                              | 1,169.5                               | 22.741                   | SF             |
| OM02C B21 696 - DD - Plan #1           | 484.8                                | 486.4                             | 45.9                                 | 44.2                                  | 26.864                   | CC             |
| OM02C B21 696 - DD - Plan #1           | 500.0                                | 501.6                             | 45.9                                 | 44.2                                  | 25.948                   | ES             |
| OM02C B21 696 - DD - Plan #1           | 9,951.6                              | 9,900.8                           | 921.2                                | 871.1                                 | 18.395                   | SF             |
| OM02D B21 696 - DD - Plan #1           | 400.0                                | 400.0                             | 20.1                                 | 18.7                                  | 14.941                   | CC, ES         |
| OM02D B21 696 - DD - Plan #1           | 4,600.0                              | 4,592.6                           | 327.5                                | 295.1                                 | 10.104                   | SF             |
| OM07A B21 696 - DD - Plan #1           | 400.0                                | 400.0                             | 10.0                                 | 8.6                                   | 7.420                    | CC, ES         |
| OM07A B21 696 - DD - Plan #1           | 500.0                                | 500.0                             | 11.6                                 | 10.0                                  | 6.879                    | SF             |
| OM07C B21 696 - DD - Plan #1           | 300.0                                | 300.0                             | 19.8                                 | 18.8                                  | 19.869                   | CC, ES         |
| OM07C B21 696 - DD - Plan #1           | 9,951.6                              | 9,998.7                           | 317.9                                | 274.1                                 | 7.270                    | SF             |
| OM07D B21 696 - DD - Plan #1           | 200.0                                | 200.0                             | 10.1                                 | 9.5                                   | 15.655                   | CC             |
| OM07D B21 696 - DD - Plan #1           | 300.0                                | 299.9                             | 10.4                                 | 9.4                                   | 10.450                   | ES             |
| OM07D B21 696 - DD - Plan #1           | 400.0                                | 399.5                             | 13.3                                 | 12.0                                  | 9.923                    | SF             |
| OM08B B21 696 - DD - Plan #1           | 400.0                                | 400.0                             | 30.1                                 | 28.7                                  | 22.360                   | CC, ES         |
| OM08B B21 696 - DD - Plan #1           | 600.0                                | 599.8                             | 36.8                                 | 34.7                                  | 18.021                   | SF             |
| OM08C B21 696 - DD - Plan #1           | 509.1                                | 510.7                             | 37.7                                 | 35.9                                  | 21.591                   | CC, ES         |
| OM08C B21 696 - DD - Plan #1           | 700.0                                | 701.4                             | 45.0                                 | 42.5                                  | 17.741                   | SF             |
| OM08D B21 696 - DD - Plan #1           | 515.2                                | 518.0                             | 53.6                                 | 51.8                                  | 29.281                   | CC, ES         |
| OM08D B21 696 - DD - Plan #1           | 700.0                                | 701.6                             | 62.6                                 | 59.9                                  | 23.131                   | SF             |

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02B B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 0.0  | 0.0                       | 0.0                       | 0.0                       | 0.0               | 0.0            | 71.98                       | 60.8                                    | 187.1         | 196.7                      |                             |                              |                      |                    |        |
| 100.0  | 100.0                     | 100.0                     | 100.0                     | 0.1               | 0.1            | 71.98                       | 60.8                                    | 187.1         | 196.7                      | 196.4                       | 0.30                         | 662.930              |                    |        |
| 200.0  | 200.0                     | 200.0                     | 200.0                     | 0.3               | 0.3            | 71.98                       | 60.8                                    | 187.1         | 196.7                      | 196.0                       | 0.65                         | 304.590              |                    |        |
| 300.0  | 300.0                     | 306.3                     | 306.2                     | 0.5               | 0.5            | 71.69                       | 61.3                                    | 185.1         | 195.1                      | 194.1                       | 1.01                         | 193.076              |                    |        |
| 400.0  | 400.0                     | 412.2                     | 412.0                     | 0.7               | 0.7            | 70.79                       | 62.5                                    | 179.4         | 190.3                      | 188.9                       | 1.39                         | 136.483              |                    |        |
| 500.0  | 500.0                     | 517.7                     | 517.0                     | 0.8               | 1.0            | -157.86                     | 64.6                                    | 169.9         | 184.1                      | 182.4                       | 1.75                         | 105.052              |                    |        |
| 600.0  | 599.8                     | 622.6                     | 621.0                     | 1.0               | 1.3            | -160.95                     | 67.5                                    | 156.7         | 178.4                      | 176.2                       | 2.16                         | 82.725               |                    |        |
| 700.0  | 699.5                     | 726.7                     | 723.7                     | 1.3               | 1.6            | -165.32                     | 71.1                                    | 139.9         | 173.7                      | 171.1                       | 2.60                         | 66.749               |                    |        |
| 800.0  | 798.7                     | 828.3                     | 823.4                     | 1.5               | 2.0            | -170.79                     | 75.4                                    | 120.2         | 171.1                      | 168.0                       | 3.10                         | 55.214               |                    |        |
| 813.1  | 811.6                     | 841.2                     | 835.9                     | 1.5               | 2.0            | -171.53                     | 76.0                                    | 117.6         | 171.1                      | 167.9                       | 3.17                         | 54.022 CC, ES        |                    |        |
| 900.0  | 897.5                     | 926.8                     | 919.7                     | 1.8               | 2.4            | -176.46                     | 79.7                                    | 100.4         | 173.0                      | 169.4                       | 3.62                         | 47.753               |                    |        |
| 1,000.0  | 995.6                     | 1,025.1                   | 1,015.9                   | 2.1               | 2.7            | 178.08                      | 84.0                                    | 80.6          | 180.1                      | 176.0                       | 4.18                         | 43.143               |                    |        |
| 1,100.0  | 1,093.3                   | 1,123.2                   | 1,111.9                   | 2.5               | 3.1            | 173.14                      | 88.3                                    | 60.9          | 191.2                      | 186.4                       | 4.77                         | 40.108               |                    |        |
| 1,200.0  | 1,191.0                   | 1,221.2                   | 1,207.8                   | 2.9               | 3.5            | 168.77                      | 92.6                                    | 41.2          | 203.5                      | 198.2                       | 5.39                         | 37.779               |                    |        |
| 1,300.0  | 1,288.6                   | 1,319.3                   | 1,303.8                   | 3.3               | 3.9            | 164.91                      | 96.9                                    | 21.4          | 217.0                      | 210.9                       | 6.03                         | 35.961               |                    |        |
| 1,400.0  | 1,386.3                   | 1,417.4                   | 1,399.8                   | 3.7               | 4.3            | 161.50                      | 101.2                                   | 1.7           | 231.3                      | 224.6                       | 6.70                         | 34.515               |                    |        |
| 1,500.0  | 1,483.9                   | 1,515.5                   | 1,495.8                   | 4.1               | 4.7            | 158.49                      | 105.5                                   | -18.0         | 246.3                      | 238.9                       | 7.39                         | 33.347               |                    |        |
| 1,600.0  | 1,581.6                   | 1,613.5                   | 1,591.7                   | 4.5               | 5.1            | 155.83                      | 109.8                                   | -37.8         | 261.9                      | 253.8                       | 8.09                         | 32.393               |                    |        |
| 1,700.0  | 1,679.2                   | 1,711.6                   | 1,687.7                   | 4.9               | 5.5            | 153.47                      | 114.1                                   | -57.5         | 278.1                      | 269.3                       | 8.80                         | 31.607               |                    |        |
| 1,800.0  | 1,776.9                   | 1,809.7                   | 1,783.7                   | 5.3               | 5.9            | 151.37                      | 118.4                                   | -77.2         | 294.6                      | 285.1                       | 9.52                         | 30.954               |                    |        |
| 1,900.0  | 1,874.5                   | 1,907.7                   | 1,879.6                   | 5.7               | 6.3            | 149.49                      | 122.7                                   | -96.9         | 311.5                      | 301.2                       | 10.24                        | 30.408               |                    |        |
| 2,000.0  | 1,972.2                   | 2,005.8                   | 1,975.6                   | 6.2               | 6.7            | 147.80                      | 127.0                                   | -116.7        | 328.6                      | 317.7                       | 10.97                        | 29.947               |                    |        |
| 2,100.0  | 2,069.9                   | 2,103.9                   | 2,071.6                   | 6.6               | 7.1            | 146.28                      | 131.3                                   | -136.4        | 346.1                      | 334.4                       | 11.71                        | 29.556               |                    |        |
| 2,200.0  | 2,167.5                   | 2,202.0                   | 2,167.6                   | 7.0               | 7.5            | 144.91                      | 135.6                                   | -156.1        | 363.7                      | 351.3                       | 12.45                        | 29.223               |                    |        |
| 2,300.0  | 2,265.2                   | 2,300.0                   | 2,263.5                   | 7.4               | 7.9            | 143.67                      | 139.9                                   | -175.9        | 381.5                      | 368.3                       | 13.19                        | 28.936               |                    |        |
| 2,400.0  | 2,362.8                   | 2,398.1                   | 2,359.5                   | 7.8               | 8.3            | 142.53                      | 144.2                                   | -195.6        | 399.5                      | 385.6                       | 13.93                        | 28.689               |                    |        |
| 2,500.0  | 2,460.5                   | 2,496.2                   | 2,455.5                   | 8.2               | 8.7            | 141.49                      | 148.5                                   | -215.3        | 417.6                      | 403.0                       | 14.67                        | 28.474               |                    |        |
| 2,600.0  | 2,558.1                   | 2,594.3                   | 2,551.4                   | 8.6               | 9.1            | 140.54                      | 152.8                                   | -235.0        | 435.9                      | 420.5                       | 15.41                        | 28.287               |                    |        |
| 2,700.0  | 2,655.8                   | 2,692.3                   | 2,647.4                   | 9.1               | 9.5            | 139.67                      | 157.1                                   | -254.8        | 454.2                      | 438.1                       | 16.15                        | 28.123               |                    |        |
| 2,800.0  | 2,753.5                   | 2,790.4                   | 2,743.4                   | 9.5               | 9.9            | 138.86                      | 161.4                                   | -274.5        | 472.7                      | 455.8                       | 16.90                        | 27.978               |                    |        |
| 2,900.0  | 2,851.1                   | 2,888.5                   | 2,839.4                   | 9.9               | 10.2           | 138.11                      | 165.7                                   | -294.2        | 491.2                      | 473.6                       | 17.64                        | 27.850               |                    |        |
| 3,000.0  | 2,948.8                   | 2,986.5                   | 2,935.3                   | 10.3              | 10.6           | 137.42                      | 170.0                                   | -314.0        | 509.8                      | 491.5                       | 18.38                        | 27.737               |                    |        |
| 3,100.0  | 3,046.4                   | 3,084.6                   | 3,031.3                   | 10.7              | 11.0           | 136.78                      | 174.3                                   | -333.7        | 528.5                      | 509.4                       | 19.12                        | 27.636               |                    |        |
| 3,200.0  | 3,144.1                   | 3,182.7                   | 3,127.3                   | 11.1              | 11.4           | 136.18                      | 178.6                                   | -353.4        | 547.2                      | 527.4                       | 19.87                        | 27.545               |                    |        |
| 3,300.0  | 3,241.7                   | 3,280.8                   | 3,223.2                   | 11.5              | 11.8           | 135.62                      | 182.9                                   | -373.1        | 566.0                      | 545.4                       | 20.61                        | 27.464               |                    |        |
| 3,400.0  | 3,339.4                   | 3,378.8                   | 3,319.2                   | 12.0              | 12.2           | 135.09                      | 187.2                                   | -392.9        | 584.9                      | 563.5                       | 21.35                        | 27.392               |                    |        |
| 3,500.0  | 3,437.1                   | 3,476.9                   | 3,415.2                   | 12.4              | 12.6           | 134.60                      | 191.5                                   | -412.6        | 603.8                      | 581.7                       | 22.09                        | 27.326               |                    |        |
| 3,600.0  | 3,534.7                   | 3,575.0                   | 3,511.2                   | 12.8              | 13.0           | 134.14                      | 195.8                                   | -432.3        | 622.7                      | 599.8                       | 22.84                        | 27.266               |                    |        |
| 3,700.0  | 3,632.4                   | 3,673.1                   | 3,607.1                   | 13.2              | 13.4           | 133.70                      | 200.1                                   | -452.1        | 641.6                      | 618.1                       | 23.58                        | 27.212               |                    |        |
| 3,800.0  | 3,730.0                   | 3,771.1                   | 3,703.1                   | 13.6              | 13.8           | 133.29                      | 204.4                                   | -471.8        | 660.6                      | 636.3                       | 24.32                        | 27.163               |                    |        |
| 3,900.0  | 3,827.7                   | 3,869.2                   | 3,799.1                   | 14.1              | 14.2           | 132.91                      | 208.7                                   | -491.5        | 679.7                      | 654.6                       | 25.06                        | 27.119               |                    |        |
| 4,000.0  | 3,925.3                   | 3,967.3                   | 3,895.0                   | 14.5              | 14.6           | 132.54                      | 213.0                                   | -511.3        | 698.7                      | 672.9                       | 25.80                        | 27.078               |                    |        |
| 4,100.0  | 4,023.0                   | 4,065.3                   | 3,991.0                   | 14.9              | 15.0           | 132.19                      | 217.3                                   | -531.0        | 717.8                      | 691.3                       | 26.55                        | 27.040               |                    |        |
| 4,200.0  | 4,120.7                   | 4,163.4                   | 4,087.0                   | 15.3              | 15.4           | 131.87                      | 221.6                                   | -550.7        | 736.9                      | 709.6                       | 27.29                        | 27.006               |                    |        |
| 4,300.0  | 4,218.3                   | 4,261.5                   | 4,183.0                   | 15.7              | 15.8           | 131.55                      | 225.9                                   | -570.4        | 756.0                      | 728.0                       | 28.03                        | 26.975               |                    |        |
| 4,400.0  | 4,316.0                   | 4,359.6                   | 4,278.9                   | 16.1              | 16.2           | 131.26                      | 230.2                                   | -590.2        | 775.2                      | 746.4                       | 28.77                        | 26.946               |                    |        |
| 4,500.0  | 4,413.6                   | 4,457.6                   | 4,374.9                   | 16.6              | 16.6           | 130.98                      | 234.5                                   | -609.9        | 794.3                      | 764.8                       | 29.51                        | 26.919               |                    |        |
| 4,600.0  | 4,511.3                   | 4,555.7                   | 4,470.9                   | 17.0              | 17.0           | 130.71                      | 238.8                                   | -629.6        | 813.5                      | 783.3                       | 30.25                        | 26.894               |                    |        |
| 4,700.0  | 4,608.9                   | 4,653.8                   | 4,566.8                   | 17.4              | 17.4           | 130.45                      | 243.1                                   | -649.4        | 832.7                      | 801.7                       | 30.99                        | 26.871               |                    |        |
| 4,800.0  | 4,706.6                   | 4,751.9                   | 4,662.8                   | 17.8              | 17.8           | 130.20                      | 247.4                                   | -669.1        | 851.9                      | 820.2                       | 31.73                        | 26.850               |                    |        |
| 4,900.0  | 4,804.2                   | 4,849.9                   | 4,758.8                   | 18.2              | 18.2           | 129.97                      | 251.7                                   | -688.8        | 871.2                      | 838.7                       | 32.47                        | 26.830               |                    |        |
| 5,000.0  | 4,901.9                   | 4,948.0                   | 4,854.8                   | 18.6              | 18.6           | 129.75                      | 256.0                                   | -708.5        | 890.4                      | 857.2                       | 33.21                        | 26.812               |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02B B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 5,100.0  | 4,999.6                   | 5,046.1                   | 4,950.7                   | 19.1              | 19.0           | 129.53                      | 260.3                                   | -728.3        | 909.7                      | 875.7                       | 33.95                        | 26.795               |                    |        |
| 5,200.0  | 5,097.2                   | 5,144.1                   | 5,046.7                   | 19.5              | 19.4           | 129.33                      | 264.6                                   | -748.0        | 928.9                      | 894.2                       | 34.69                        | 26.779               |                    |        |
| 5,300.0  | 5,194.9                   | 5,242.2                   | 5,142.7                   | 19.9              | 19.8           | 129.13                      | 268.9                                   | -767.7        | 948.2                      | 912.8                       | 35.43                        | 26.764               |                    |        |
| 5,400.0  | 5,292.5                   | 5,340.3                   | 5,238.6                   | 20.3              | 20.2           | 128.94                      | 273.2                                   | -787.5        | 967.5                      | 931.3                       | 36.17                        | 26.751               |                    |        |
| 5,500.0  | 5,390.2                   | 5,438.4                   | 5,334.6                   | 20.7              | 20.6           | 128.76                      | 277.5                                   | -807.2        | 986.8                      | 949.9                       | 36.91                        | 26.738               |                    |        |
| 5,600.0  | 5,487.8                   | 5,536.4                   | 5,430.6                   | 21.2              | 21.0           | 128.58                      | 281.8                                   | -826.9        | 1,006.1                    | 968.5                       | 37.65                        | 26.726               |                    |        |
| 5,700.0  | 5,585.5                   | 5,634.5                   | 5,526.6                   | 21.6              | 21.4           | 128.41                      | 286.1                                   | -846.6        | 1,025.4                    | 987.0                       | 38.38                        | 26.714               |                    |        |
| 5,800.0  | 5,683.2                   | 5,732.6                   | 5,622.5                   | 22.0              | 21.8           | 128.25                      | 290.4                                   | -866.4        | 1,044.7                    | 1,005.6                     | 39.12                        | 26.704               |                    |        |
| 5,900.0  | 5,780.8                   | 5,830.7                   | 5,718.5                   | 22.4              | 22.2           | 128.09                      | 294.7                                   | -886.1        | 1,064.1                    | 1,024.2                     | 39.86                        | 26.694               |                    |        |
| 6,000.0  | 5,878.5                   | 5,928.7                   | 5,814.5                   | 22.8              | 22.6           | 127.94                      | 299.0                                   | -905.8        | 1,083.4                    | 1,042.8                     | 40.60                        | 26.685               |                    |        |
| 6,100.0  | 5,976.1                   | 6,026.8                   | 5,910.4                   | 23.2              | 23.0           | 127.80                      | 303.3                                   | -925.6        | 1,102.8                    | 1,061.4                     | 41.34                        | 26.676               |                    |        |
| 6,200.0  | 6,073.8                   | 6,124.9                   | 6,006.4                   | 23.7              | 23.4           | 127.66                      | 307.6                                   | -945.3        | 1,122.1                    | 1,080.0                     | 42.08                        | 26.668               |                    |        |
| 6,300.0  | 6,171.4                   | 6,223.0                   | 6,102.4                   | 24.1              | 23.8           | 127.52                      | 311.9                                   | -965.0        | 1,141.5                    | 1,098.7                     | 42.82                        | 26.660               |                    |        |
| 6,400.0  | 6,269.1                   | 6,321.0                   | 6,198.4                   | 24.5              | 24.2           | 127.45                      | 316.2                                   | -984.7        | 1,160.8                    | 1,117.2                     | 43.56                        | 26.645               |                    |        |
| 6,500.0  | 6,367.3                   | 6,419.3                   | 6,294.5                   | 24.8              | 24.6           | 127.52                      | 320.5                                   | -1,004.5      | 1,178.7                    | 1,134.4                     | 44.31                        | 26.600               |                    |        |
| 6,600.0  | 6,466.0                   | 6,529.6                   | 6,402.8                   | 25.1              | 25.0           | 127.44                      | 325.0                                   | -1,025.2      | 1,194.2                    | 1,149.1                     | 45.02                        | 26.524               |                    |        |
| 6,700.0  | 6,565.3                   | 6,643.4                   | 6,515.2                   | 25.4              | 25.3           | 127.36                      | 328.8                                   | -1,042.4      | 1,206.3                    | 1,160.7                     | 45.62                        | 26.446               |                    |        |
| 6,800.0  | 6,664.9                   | 6,757.9                   | 6,628.9                   | 25.6              | 25.6           | 127.29                      | 331.6                                   | -1,055.2      | 1,215.2                    | 1,169.1                     | 46.09                        | 26.366               |                    |        |
| 6,900.0  | 6,764.7                   | 6,873.0                   | 6,743.7                   | 25.7              | 25.8           | 127.22                      | 333.4                                   | -1,063.7      | 1,220.8                    | 1,174.3                     | 46.44                        | 26.284               |                    |        |
| 7,000.0  | 6,864.7                   | 6,988.4                   | 6,859.1                   | 25.8              | 25.9           | 127.15                      | 334.3                                   | -1,067.6      | 1,223.0                    | 1,176.3                     | 46.68                        | 26.199               |                    |        |
| 7,100.0  | 6,964.7                   | 7,095.5                   | 6,966.1                   | 25.9              | 26.0           | 113.94                      | 334.3                                   | -1,068.0      | 1,223.1                    | 1,176.2                     | 46.88                        | 26.090               |                    |        |
| 7,200.0  | 7,064.7                   | 7,197.7                   | 7,068.3                   | 26.0              | 26.1           | 113.95                      | 334.0                                   | -1,068.4      | 1,223.1                    | 1,176.1                     | 47.09                        | 25.975               |                    |        |
| 7,300.0  | 7,164.7                   | 7,299.9                   | 7,170.5                   | 26.1              | 26.2           | 113.95                      | 333.5                                   | -1,069.3      | 1,223.2                    | 1,175.9                     | 47.31                        | 25.854               |                    |        |
| 7,400.0  | 7,264.7                   | 7,401.2                   | 7,271.8                   | 26.2              | 26.3           | 113.95                      | 332.9                                   | -1,070.5      | 1,223.2                    | 1,175.7                     | 47.54                        | 25.731               |                    |        |
| 7,500.0  | 7,364.7                   | 7,501.2                   | 7,371.8                   | 26.3              | 26.4           | 113.95                      | 332.1                                   | -1,071.7      | 1,223.2                    | 1,175.5                     | 47.77                        | 25.607               |                    |        |
| 7,600.0  | 7,464.7                   | 7,601.2                   | 7,471.8                   | 26.4              | 26.5           | 113.95                      | 331.4                                   | -1,073.0      | 1,223.2                    | 1,175.2                     | 48.00                        | 25.485               |                    |        |
| 7,700.0  | 7,564.7                   | 7,701.2                   | 7,571.8                   | 26.5              | 26.6           | 113.95                      | 330.7                                   | -1,074.2      | 1,223.2                    | 1,175.0                     | 48.23                        | 25.362               |                    |        |
| 7,800.0  | 7,664.6                   | 7,801.2                   | 7,671.7                   | 26.6              | 26.7           | 113.95                      | 330.0                                   | -1,075.4      | 1,223.2                    | 1,174.8                     | 48.46                        | 25.240               |                    |        |
| 7,900.0  | 7,764.6                   | 7,901.2                   | 7,771.7                   | 26.7              | 26.8           | 113.95                      | 329.3                                   | -1,076.7      | 1,223.2                    | 1,174.5                     | 48.70                        | 25.119               |                    |        |
| 8,000.0  | 7,864.6                   | 8,001.2                   | 7,871.7                   | 26.8              | 26.9           | 113.95                      | 328.6                                   | -1,077.9      | 1,223.2                    | 1,174.3                     | 48.93                        | 24.998               |                    |        |
| 8,100.0  | 7,964.6                   | 8,101.2                   | 7,971.7                   | 27.0              | 27.0           | 113.95                      | 327.8                                   | -1,079.2      | 1,223.2                    | 1,174.1                     | 49.17                        | 24.877               |                    |        |
| 8,200.0  | 8,064.6                   | 8,201.2                   | 8,071.7                   | 27.1              | 27.1           | 113.95                      | 327.1                                   | -1,080.4      | 1,223.2                    | 1,173.8                     | 49.41                        | 24.757               |                    |        |
| 8,300.0  | 8,164.6                   | 8,301.2                   | 8,171.7                   | 27.2              | 27.2           | 113.95                      | 326.4                                   | -1,081.7      | 1,223.3                    | 1,173.6                     | 49.65                        | 24.637               |                    |        |
| 8,400.0  | 8,264.6                   | 8,401.2                   | 8,271.7                   | 27.3              | 27.3           | 113.95                      | 325.7                                   | -1,082.9      | 1,223.3                    | 1,173.4                     | 49.89                        | 24.518               |                    |        |
| 8,500.0  | 8,364.6                   | 8,501.2                   | 8,371.7                   | 27.4              | 27.4           | 113.95                      | 325.0                                   | -1,084.1      | 1,223.3                    | 1,173.1                     | 50.13                        | 24.400               |                    |        |
| 8,600.0  | 8,464.6                   | 8,601.2                   | 8,471.7                   | 27.5              | 27.5           | 113.95                      | 324.3                                   | -1,085.4      | 1,223.3                    | 1,172.9                     | 50.38                        | 24.282               |                    |        |
| 8,700.0  | 8,564.6                   | 8,701.2                   | 8,571.7                   | 27.6              | 27.7           | 113.95                      | 323.5                                   | -1,086.6      | 1,223.3                    | 1,172.6                     | 50.62                        | 24.164               |                    |        |
| 8,800.0  | 8,664.5                   | 8,801.2                   | 8,671.6                   | 27.8              | 27.8           | 113.95                      | 322.8                                   | -1,087.9      | 1,223.3                    | 1,172.4                     | 50.87                        | 24.047               |                    |        |
| 8,900.0  | 8,764.5                   | 8,901.2                   | 8,771.6                   | 27.9              | 27.9           | 113.95                      | 322.1                                   | -1,089.1      | 1,223.3                    | 1,172.2                     | 51.12                        | 23.930               |                    |        |
| 9,000.0  | 8,864.5                   | 9,001.2                   | 8,871.6                   | 28.0              | 28.0           | 113.95                      | 321.4                                   | -1,090.4      | 1,223.3                    | 1,171.9                     | 51.37                        | 23.815               |                    |        |
| 9,100.0  | 8,964.5                   | 9,101.2                   | 8,971.6                   | 28.1              | 28.1           | 113.95                      | 320.7                                   | -1,091.6      | 1,223.3                    | 1,171.7                     | 51.62                        | 23.699               |                    |        |
| 9,200.0  | 9,064.5                   | 9,201.2                   | 9,071.6                   | 28.2              | 28.2           | 113.95                      | 320.0                                   | -1,092.9      | 1,223.3                    | 1,171.4                     | 51.87                        | 23.584               |                    |        |
| 9,300.0  | 9,164.5                   | 9,301.2                   | 9,171.6                   | 28.3              | 28.3           | 113.95                      | 319.2                                   | -1,094.1      | 1,223.3                    | 1,171.2                     | 52.12                        | 23.470               |                    |        |
| 9,400.0  | 9,264.5                   | 9,401.2                   | 9,271.6                   | 28.5              | 28.5           | 113.95                      | 318.5                                   | -1,095.3      | 1,223.3                    | 1,170.9                     | 52.37                        | 23.357               |                    |        |
| 9,500.0  | 9,364.5                   | 9,501.2                   | 9,371.6                   | 28.6              | 28.6           | 113.95                      | 317.8                                   | -1,096.6      | 1,223.3                    | 1,170.7                     | 52.63                        | 23.244               |                    |        |
| 9,600.0  | 9,464.5                   | 9,601.2                   | 9,471.6                   | 28.7              | 28.7           | 113.96                      | 317.1                                   | -1,097.8      | 1,223.3                    | 1,170.4                     | 52.88                        | 23.131               |                    |        |
| 9,700.0  | 9,564.4                   | 9,701.2                   | 9,571.6                   | 28.8              | 28.8           | 113.96                      | 316.4                                   | -1,099.1      | 1,223.3                    | 1,170.2                     | 53.14                        | 23.019               |                    |        |
| 9,800.0  | 9,664.4                   | 9,801.2                   | 9,671.5                   | 29.0              | 28.9           | 113.96                      | 315.7                                   | -1,100.3      | 1,223.3                    | 1,169.9                     | 53.40                        | 22.908               |                    |        |
| 9,900.0  | 9,764.4                   | 9,901.2                   | 9,771.5                   | 29.1              | 29.0           | 113.96                      | 315.0                                   | -1,101.6      | 1,223.3                    | 1,169.6                     | 53.66                        | 22.798               |                    |        |
| 9,951.6  | 9,816.0                   | 9,952.8                   | 9,823.1                   | 29.1              | 29.1           | 113.96                      | 314.6                                   | -1,102.2      | 1,223.3                    | 1,169.5                     | 53.79                        | 22.741 SF            |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02C B21 696 - DD - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                  |            | Offset Site Error: | 0.0 ft |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------|------------|--------------------|--------|
| Survey Program: O-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                  |            | Offset Well Error: | 0.0 ft |
| Reference  |                     | Offset              |                     | Semi Major Axis |             |                       | Distance                          |            |                      |                       | Total            | Separation | Warning            |        |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Uncertainty Axis | Factor     |                    |        |
| 0.0  | 0.0                 | 0.0                 | 0.0                 | 0.0             | 0.0         | 29.32                 | 43.7                              | 24.5       | 50.1                 |                       |                  |            |                    |        |
| 100.0  | 100.0               | 100.0               | 100.0               | 0.1             | 0.1         | 29.32                 | 43.7                              | 24.5       | 50.1                 | 49.8                  | 0.30             | 168.953    |                    |        |
| 200.0  | 200.0               | 200.0               | 200.0               | 0.3             | 0.3         | 29.32                 | 43.7                              | 24.5       | 50.1                 | 49.5                  | 0.65             | 77.627     |                    |        |
| 300.0  | 300.0               | 300.8               | 300.8               | 0.5             | 0.5         | 27.52                 | 43.7                              | 22.8       | 49.3                 | 48.3                  | 1.00             | 49.294     |                    |        |
| 400.0  | 400.0               | 401.4               | 401.2               | 0.7             | 0.7         | 21.80                 | 43.7                              | 17.5       | 47.1                 | 45.7                  | 1.37             | 34.413     |                    |        |
| 484.8  | 484.8               | 486.4               | 486.0               | 0.8             | 0.9         | 147.31                | 43.6                              | 10.2       | 45.9                 | 44.2                  | 1.71             | 26.864 CC  |                    |        |
| 500.0  | 500.0               | 501.6               | 501.1               | 0.8             | 0.9         | 145.76                | 43.6                              | 8.7        | 45.9                 | 44.2                  | 1.77             | 25.948 ES  |                    |        |
| 600.0  | 599.8               | 601.4               | 600.1               | 1.0             | 1.2         | 135.01                | 43.6                              | -3.5       | 48.4                 | 46.1                  | 2.22             | 21.769     |                    |        |
| 700.0  | 699.5               | 700.8               | 698.3               | 1.3             | 1.5         | 125.25                | 43.5                              | -18.8      | 54.7                 | 52.0                  | 2.72             | 20.134     |                    |        |
| 800.0  | 798.7               | 800.2               | 796.5               | 1.5             | 1.8         | 119.86                | 43.4                              | -34.6      | 64.1                 | 60.9                  | 3.25             | 19.750     |                    |        |
| 900.0  | 897.5               | 899.5               | 894.5               | 1.8             | 2.1         | 118.17                | 43.3                              | -50.4      | 75.5                 | 71.7                  | 3.82             | 19.770     |                    |        |
| 1,000.0  | 995.6               | 998.7               | 992.4               | 2.1             | 2.4         | 118.87                | 43.2                              | -66.2      | 88.6                 | 84.1                  | 4.44             | 19.958     |                    |        |
| 1,100.0  | 1,093.3             | 1,097.6             | 1,090.1             | 2.5             | 2.8         | 120.69                | 43.1                              | -81.9      | 102.8                | 97.8                  | 5.08             | 20.260     |                    |        |
| 1,200.0  | 1,191.0             | 1,196.5             | 1,187.7             | 2.9             | 3.1         | 122.14                | 43.0                              | -97.6      | 117.2                | 111.5                 | 5.72             | 20.493     |                    |        |
| 1,300.0  | 1,288.6             | 1,295.4             | 1,285.4             | 3.3             | 3.4         | 123.27                | 43.0                              | -113.4     | 131.7                | 125.3                 | 6.37             | 20.677     |                    |        |
| 1,400.0  | 1,386.3             | 1,394.4             | 1,383.0             | 3.7             | 3.7         | 124.18                | 42.9                              | -129.1     | 146.2                | 139.2                 | 7.02             | 20.826     |                    |        |
| 1,500.0  | 1,483.9             | 1,493.3             | 1,480.7             | 4.1             | 4.0         | 124.92                | 42.8                              | -144.8     | 160.7                | 153.0                 | 7.67             | 20.951     |                    |        |
| 1,600.0  | 1,581.6             | 1,592.2             | 1,578.4             | 4.5             | 4.4         | 125.54                | 42.7                              | -160.6     | 175.2                | 166.9                 | 8.32             | 21.057     |                    |        |
| 1,700.0  | 1,679.2             | 1,691.1             | 1,676.0             | 4.9             | 4.7         | 126.07                | 42.6                              | -176.3     | 189.8                | 180.8                 | 8.98             | 21.147     |                    |        |
| 1,800.0  | 1,776.9             | 1,790.0             | 1,773.7             | 5.3             | 5.0         | 126.52                | 42.5                              | -192.0     | 204.4                | 194.7                 | 9.63             | 21.226     |                    |        |
| 1,900.0  | 1,874.5             | 1,889.0             | 1,871.3             | 5.7             | 5.3         | 126.91                | 42.4                              | -207.8     | 219.0                | 208.7                 | 10.28            | 21.295     |                    |        |
| 2,000.0  | 1,972.2             | 1,987.9             | 1,969.0             | 6.2             | 5.7         | 127.25                | 42.4                              | -223.5     | 233.6                | 222.6                 | 10.94            | 21.356     |                    |        |
| 2,100.0  | 2,069.9             | 2,086.8             | 2,066.7             | 6.6             | 6.0         | 127.55                | 42.3                              | -239.2     | 248.2                | 236.6                 | 11.59            | 21.411     |                    |        |
| 2,200.0  | 2,167.5             | 2,185.7             | 2,164.3             | 7.0             | 6.3         | 127.82                | 42.2                              | -254.9     | 262.8                | 250.5                 | 12.24            | 21.460     |                    |        |
| 2,300.0  | 2,265.2             | 2,284.6             | 2,262.0             | 7.4             | 6.7         | 128.06                | 42.1                              | -270.7     | 277.4                | 264.5                 | 12.90            | 21.504     |                    |        |
| 2,400.0  | 2,362.8             | 2,383.6             | 2,359.7             | 7.8             | 7.0         | 128.27                | 42.0                              | -286.4     | 292.0                | 278.4                 | 13.55            | 21.544     |                    |        |
| 2,500.0  | 2,460.5             | 2,482.5             | 2,457.3             | 8.2             | 7.3         | 128.47                | 41.9                              | -302.1     | 306.6                | 292.4                 | 14.21            | 21.581     |                    |        |
| 2,600.0  | 2,558.1             | 2,581.4             | 2,555.0             | 8.6             | 7.6         | 128.65                | 41.8                              | -317.9     | 321.2                | 306.4                 | 14.86            | 21.614     |                    |        |
| 2,700.0  | 2,655.8             | 2,680.3             | 2,652.6             | 9.1             | 8.0         | 128.81                | 41.7                              | -333.6     | 335.9                | 320.3                 | 15.52            | 21.645     |                    |        |
| 2,800.0  | 2,753.5             | 2,779.2             | 2,750.3             | 9.5             | 8.3         | 128.96                | 41.7                              | -349.3     | 350.5                | 334.3                 | 16.17            | 21.673     |                    |        |
| 2,900.0  | 2,851.1             | 2,878.2             | 2,848.0             | 9.9             | 8.6         | 129.09                | 41.6                              | -365.1     | 365.1                | 348.3                 | 16.83            | 21.699     |                    |        |
| 3,000.0  | 2,948.8             | 2,977.1             | 2,945.6             | 10.3            | 8.9         | 129.22                | 41.5                              | -380.8     | 379.7                | 362.3                 | 17.48            | 21.723     |                    |        |
| 3,100.0  | 3,046.4             | 3,076.0             | 3,043.3             | 10.7            | 9.3         | 129.34                | 41.4                              | -396.5     | 394.4                | 376.2                 | 18.14            | 21.746     |                    |        |
| 3,200.0  | 3,144.1             | 3,174.9             | 3,140.9             | 11.1            | 9.6         | 129.44                | 41.3                              | -412.3     | 409.0                | 390.2                 | 18.79            | 21.767     |                    |        |
| 3,300.0  | 3,241.7             | 3,273.9             | 3,238.6             | 11.5            | 9.9         | 129.54                | 41.2                              | -428.0     | 423.6                | 404.2                 | 19.45            | 21.787     |                    |        |
| 3,400.0  | 3,339.4             | 3,372.8             | 3,336.3             | 12.0            | 10.2        | 129.64                | 41.1                              | -443.7     | 438.3                | 418.2                 | 20.10            | 21.805     |                    |        |
| 3,500.0  | 3,437.1             | 3,471.7             | 3,433.9             | 12.4            | 10.6        | 129.73                | 41.1                              | -459.5     | 452.9                | 432.2                 | 20.75            | 21.822     |                    |        |
| 3,600.0  | 3,534.7             | 3,570.6             | 3,531.6             | 12.8            | 10.9        | 129.81                | 41.0                              | -475.2     | 467.6                | 446.2                 | 21.41            | 21.839     |                    |        |
| 3,700.0  | 3,632.4             | 3,669.5             | 3,629.3             | 13.2            | 11.2        | 129.89                | 40.9                              | -490.9     | 482.2                | 460.1                 | 22.06            | 21.854     |                    |        |
| 3,800.0  | 3,730.0             | 3,768.5             | 3,726.9             | 13.6            | 11.6        | 129.96                | 40.8                              | -506.7     | 496.8                | 474.1                 | 22.72            | 21.868     |                    |        |
| 3,900.0  | 3,827.7             | 3,867.4             | 3,824.6             | 14.1            | 11.9        | 130.03                | 40.7                              | -522.4     | 511.5                | 488.1                 | 23.37            | 21.882     |                    |        |
| 4,000.0  | 3,925.3             | 3,966.3             | 3,922.2             | 14.5            | 12.2        | 130.09                | 40.6                              | -538.1     | 526.1                | 502.1                 | 24.03            | 21.895     |                    |        |
| 4,100.0  | 4,023.0             | 4,065.2             | 4,019.9             | 14.9            | 12.5        | 130.15                | 40.5                              | -553.8     | 540.8                | 516.1                 | 24.68            | 21.907     |                    |        |
| 4,200.0  | 4,120.7             | 4,164.1             | 4,117.6             | 15.3            | 12.9        | 130.21                | 40.5                              | -569.6     | 555.4                | 530.1                 | 25.34            | 21.919     |                    |        |
| 4,300.0  | 4,218.3             | 4,263.1             | 4,215.2             | 15.7            | 13.2        | 130.27                | 40.4                              | -585.3     | 570.1                | 544.1                 | 25.99            | 21.930     |                    |        |
| 4,400.0  | 4,316.0             | 4,362.0             | 4,312.9             | 16.1            | 13.5        | 130.32                | 40.3                              | -601.0     | 584.7                | 558.1                 | 26.65            | 21.941     |                    |        |
| 4,500.0  | 4,413.6             | 4,460.9             | 4,410.5             | 16.6            | 13.8        | 130.37                | 40.2                              | -616.8     | 599.3                | 572.0                 | 27.30            | 21.951     |                    |        |
| 4,600.0  | 4,511.3             | 4,559.8             | 4,508.2             | 17.0            | 14.2        | 130.42                | 40.1                              | -632.5     | 614.0                | 586.0                 | 27.96            | 21.960     |                    |        |
| 4,700.0  | 4,608.9             | 4,658.7             | 4,605.9             | 17.4            | 14.5        | 130.46                | 40.0                              | -648.2     | 628.6                | 600.0                 | 28.61            | 21.969     |                    |        |
| 4,800.0  | 4,706.6             | 4,757.7             | 4,703.5             | 17.8            | 14.8        | 130.51                | 39.9                              | -664.0     | 643.3                | 614.0                 | 29.27            | 21.978     |                    |        |
| 4,900.0  | 4,804.2             | 4,856.6             | 4,801.2             | 18.2            | 15.1        | 130.55                | 39.9                              | -679.7     | 657.9                | 628.0                 | 29.92            | 21.987     |                    |        |
| 5,000.0  | 4,901.9             | 4,955.5             | 4,898.9             | 18.6            | 15.5        | 130.59                | 39.8                              | -695.4     | 672.6                | 642.0                 | 30.58            | 21.995     |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02C B21 696 - DD - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                  |                   | Offset Site Error: | 0.0 ft |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------|-------------------|--------------------|--------|
| Survey Program: O-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                  |                   | Offset Well Error: | 0.0 ft |
| Reference  |                     | Offset              |                     | Semi Major Axis |             |                       | Distance                          |            |                      |                       | Total            |                   | Warning            |        |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Uncertainty Axis | Separation Factor |                    |        |
| 5,100.0  | 4,999.6             | 5,054.4             | 4,996.5             | 19.1            | 15.8        | 130.62                | 39.7                              | -711.2     | 687.2                | 656.0                 | 31.23            | 22.002            |                    |        |
| 5,200.0  | 5,097.2             | 5,153.3             | 5,094.2             | 19.5            | 16.1        | 130.66                | 39.6                              | -726.9     | 701.9                | 670.0                 | 31.89            | 22.010            |                    |        |
| 5,300.0  | 5,194.9             | 5,252.3             | 5,191.8             | 19.9            | 16.5        | 130.70                | 39.5                              | -742.6     | 716.5                | 684.0                 | 32.54            | 22.017            |                    |        |
| 5,400.0  | 5,292.5             | 5,351.2             | 5,289.5             | 20.3            | 16.8        | 130.73                | 39.4                              | -758.4     | 731.2                | 698.0                 | 33.20            | 22.024            |                    |        |
| 5,500.0  | 5,390.2             | 5,450.1             | 5,387.2             | 20.7            | 17.1        | 130.76                | 39.3                              | -774.1     | 745.8                | 712.0                 | 33.85            | 22.030            |                    |        |
| 5,600.0  | 5,487.8             | 5,549.0             | 5,484.8             | 21.2            | 17.4        | 130.79                | 39.3                              | -789.8     | 760.5                | 726.0                 | 34.51            | 22.037            |                    |        |
| 5,700.0  | 5,585.5             | 5,647.9             | 5,582.5             | 21.6            | 17.8        | 130.82                | 39.2                              | -805.6     | 775.1                | 740.0                 | 35.16            | 22.043            |                    |        |
| 5,800.0  | 5,683.2             | 5,746.9             | 5,680.1             | 22.0            | 18.1        | 130.85                | 39.1                              | -821.3     | 789.8                | 753.9                 | 35.82            | 22.049            |                    |        |
| 5,900.0  | 5,780.8             | 5,845.8             | 5,777.8             | 22.4            | 18.4        | 130.88                | 39.0                              | -837.0     | 804.4                | 767.9                 | 36.47            | 22.054            |                    |        |
| 6,000.0  | 5,878.5             | 5,944.7             | 5,875.5             | 22.8            | 18.7        | 130.90                | 38.9                              | -852.7     | 819.1                | 781.9                 | 37.13            | 22.060            |                    |        |
| 6,100.0  | 5,976.1             | 6,043.6             | 5,973.1             | 23.2            | 19.1        | 130.93                | 38.8                              | -868.5     | 833.7                | 795.9                 | 37.78            | 22.065            |                    |        |
| 6,200.0  | 6,073.8             | 6,142.5             | 6,070.8             | 23.7            | 19.4        | 130.95                | 38.7                              | -884.2     | 848.4                | 809.9                 | 38.44            | 22.070            |                    |        |
| 6,300.0  | 6,171.4             | 6,241.5             | 6,168.5             | 24.1            | 19.7        | 130.98                | 38.6                              | -899.9     | 863.0                | 823.9                 | 39.09            | 22.075            |                    |        |
| 6,400.0  | 6,269.1             | 6,340.4             | 6,266.1             | 24.5            | 20.1        | 131.04                | 38.6                              | -915.7     | 877.6                | 837.9                 | 39.75            | 22.077            |                    |        |
| 6,500.0  | 6,367.3             | 6,439.5             | 6,364.0             | 24.8            | 20.4        | 131.14                | 38.5                              | -931.4     | 890.7                | 850.3                 | 40.40            | 22.046            |                    |        |
| 6,600.0  | 6,466.0             | 6,539.0             | 6,462.3             | 25.1            | 20.7        | 131.05                | 38.4                              | -947.2     | 901.5                | 860.4                 | 41.03            | 21.970            |                    |        |
| 6,700.0  | 6,565.3             | 6,639.5             | 6,561.8             | 25.4            | 21.0        | 130.91                | 38.3                              | -960.7     | 909.9                | 868.3                 | 41.57            | 21.888            |                    |        |
| 6,800.0  | 6,664.9             | 6,740.4             | 6,662.2             | 25.6            | 21.2        | 130.79                | 38.3                              | -970.6     | 916.0                | 874.0                 | 42.01            | 21.806            |                    |        |
| 6,900.0  | 6,764.7             | 6,841.5             | 6,763.1             | 25.7            | 21.4        | 130.70                | 38.2                              | -977.1     | 919.7                | 877.3                 | 42.34            | 21.724            |                    |        |
| 7,000.0  | 6,864.7             | 6,942.8             | 6,864.3             | 25.8            | 21.5        | 130.62                | 38.2                              | -980.0     | 921.0                | 878.4                 | 42.57            | 21.636            |                    |        |
| 7,100.0  | 6,964.7             | 7,044.5             | 6,966.0             | 25.9            | 21.6        | 117.41                | 38.2                              | -980.3     | 921.0                | 878.2                 | 42.78            | 21.530            |                    |        |
| 7,200.0  | 7,064.7             | 7,146.3             | 7,067.9             | 26.0            | 21.7        | 117.42                | 37.9                              | -980.8     | 921.1                | 878.1                 | 43.00            | 21.419            |                    |        |
| 7,300.0  | 7,164.7             | 7,248.2             | 7,169.8             | 26.1            | 21.8        | 117.43                | 37.4                              | -981.6     | 921.1                | 877.9                 | 43.24            | 21.303            |                    |        |
| 7,400.0  | 7,264.7             | 7,349.2             | 7,270.8             | 26.2            | 21.9        | 117.43                | 36.7                              | -982.8     | 921.2                | 877.7                 | 43.48            | 21.185            |                    |        |
| 7,500.0  | 7,364.7             | 7,449.2             | 7,370.8             | 26.3            | 22.0        | 117.43                | 36.0                              | -984.1     | 921.2                | 877.4                 | 43.72            | 21.067            |                    |        |
| 7,600.0  | 7,464.7             | 7,549.2             | 7,470.7             | 26.4            | 22.2        | 117.43                | 35.3                              | -985.3     | 921.2                | 877.2                 | 43.97            | 20.950            |                    |        |
| 7,700.0  | 7,564.7             | 7,649.2             | 7,570.7             | 26.5            | 22.3        | 117.43                | 34.6                              | -986.5     | 921.2                | 876.9                 | 44.21            | 20.834            |                    |        |
| 7,800.0  | 7,664.6             | 7,749.2             | 7,670.7             | 26.6            | 22.4        | 117.43                | 33.8                              | -987.8     | 921.2                | 876.7                 | 44.46            | 20.719            |                    |        |
| 7,900.0  | 7,764.6             | 7,849.2             | 7,770.7             | 26.7            | 22.5        | 117.43                | 33.1                              | -989.0     | 921.2                | 876.5                 | 44.71            | 20.603            |                    |        |
| 8,000.0  | 7,864.6             | 7,949.2             | 7,870.7             | 26.8            | 22.7        | 117.43                | 32.4                              | -990.3     | 921.2                | 876.2                 | 44.96            | 20.489            |                    |        |
| 8,100.0  | 7,964.6             | 8,049.2             | 7,970.7             | 27.0            | 22.8        | 117.43                | 31.7                              | -991.5     | 921.2                | 876.0                 | 45.21            | 20.375            |                    |        |
| 8,200.0  | 8,064.6             | 8,149.2             | 8,070.7             | 27.1            | 22.9        | 117.43                | 31.0                              | -992.8     | 921.2                | 875.7                 | 45.46            | 20.262            |                    |        |
| 8,300.0  | 8,164.6             | 8,249.2             | 8,170.7             | 27.2            | 23.0        | 117.43                | 30.3                              | -994.0     | 921.2                | 875.5                 | 45.72            | 20.150            |                    |        |
| 8,400.0  | 8,264.6             | 8,349.2             | 8,270.7             | 27.3            | 23.2        | 117.43                | 29.5                              | -995.2     | 921.2                | 875.2                 | 45.97            | 20.038            |                    |        |
| 8,500.0  | 8,364.6             | 8,449.2             | 8,370.6             | 27.4            | 23.3        | 117.43                | 28.8                              | -996.5     | 921.2                | 875.0                 | 46.23            | 19.927            |                    |        |
| 8,600.0  | 8,464.6             | 8,549.2             | 8,470.6             | 27.5            | 23.4        | 117.43                | 28.1                              | -997.7     | 921.2                | 874.7                 | 46.48            | 19.817            |                    |        |
| 8,700.0  | 8,564.6             | 8,649.2             | 8,570.6             | 27.6            | 23.5        | 117.43                | 27.4                              | -999.0     | 921.2                | 874.4                 | 46.74            | 19.707            |                    |        |
| 8,800.0  | 8,664.5             | 8,749.2             | 8,670.6             | 27.8            | 23.7        | 117.43                | 26.7                              | -1,000.2   | 921.2                | 874.2                 | 47.00            | 19.598            |                    |        |
| 8,900.0  | 8,764.5             | 8,849.2             | 8,770.6             | 27.9            | 23.8        | 117.43                | 26.0                              | -1,001.5   | 921.2                | 873.9                 | 47.26            | 19.490            |                    |        |
| 9,000.0  | 8,864.5             | 8,949.2             | 8,870.6             | 28.0            | 23.9        | 117.43                | 25.2                              | -1,002.7   | 921.2                | 873.7                 | 47.53            | 19.382            |                    |        |
| 9,100.0  | 8,964.5             | 9,049.2             | 8,970.6             | 28.1            | 24.1        | 117.43                | 24.5                              | -1,003.9   | 921.2                | 873.4                 | 47.79            | 19.276            |                    |        |
| 9,200.0  | 9,064.5             | 9,149.2             | 9,070.6             | 28.2            | 24.2        | 117.43                | 23.8                              | -1,005.2   | 921.2                | 873.1                 | 48.06            | 19.169            |                    |        |
| 9,300.0  | 9,164.5             | 9,249.2             | 9,170.6             | 28.3            | 24.3        | 117.43                | 23.1                              | -1,006.4   | 921.2                | 872.9                 | 48.32            | 19.064            |                    |        |
| 9,400.0  | 9,264.5             | 9,349.2             | 9,270.6             | 28.5            | 24.5        | 117.43                | 22.4                              | -1,007.7   | 921.2                | 872.6                 | 48.59            | 18.959            |                    |        |
| 9,500.0  | 9,364.5             | 9,449.2             | 9,370.5             | 28.6            | 24.6        | 117.43                | 21.7                              | -1,008.9   | 921.2                | 872.3                 | 48.86            | 18.856            |                    |        |
| 9,600.0  | 9,464.5             | 9,549.2             | 9,470.5             | 28.7            | 24.7        | 117.43                | 20.9                              | -1,010.2   | 921.2                | 872.1                 | 49.12            | 18.752            |                    |        |
| 9,700.0  | 9,564.4             | 9,649.2             | 9,570.5             | 28.8            | 24.9        | 117.43                | 20.2                              | -1,011.4   | 921.2                | 871.8                 | 49.39            | 18.650            |                    |        |
| 9,800.0  | 9,664.4             | 9,749.2             | 9,670.5             | 29.0            | 25.0        | 117.43                | 19.5                              | -1,012.6   | 921.2                | 871.5                 | 49.67            | 18.548            |                    |        |
| 9,900.0  | 9,764.4             | 9,849.2             | 9,770.5             | 29.1            | 25.1        | 117.43                | 18.8                              | -1,013.9   | 921.2                | 871.3                 | 49.94            | 18.447            |                    |        |
| 9,951.6  | 9,816.0             | 9,900.8             | 9,822.1             | 29.1            | 25.2        | 117.43                | 18.4                              | -1,014.5   | 921.2                | 871.1                 | 50.08            | 18.395 SF         |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02D B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 0.0  | 0.0                       | 0.0                       | 0.0                       | 0.0               | 0.0            | 29.46                       | 17.5                                    | 9.9           | 20.1                       |                             |                              |                      |                    |        |
| 100.0  | 100.0                     | 100.0                     | 100.0                     | 0.1               | 0.1            | 29.46                       | 17.5                                    | 9.9           | 20.1                       | 19.8                        | 0.30                         | 67.674               |                    |        |
| 200.0  | 200.0                     | 200.0                     | 200.0                     | 0.3               | 0.3            | 29.46                       | 17.5                                    | 9.9           | 20.1                       | 19.4                        | 0.65                         | 31.094               |                    |        |
| 300.0  | 300.0                     | 300.0                     | 300.0                     | 0.5               | 0.5            | 29.46                       | 17.5                                    | 9.9           | 20.1                       | 19.1                        | 0.99                         | 20.184               |                    |        |
| 400.0  | 400.0                     | 400.0                     | 400.0                     | 0.7               | 0.7            | 29.46                       | 17.5                                    | 9.9           | 20.1                       | 18.7                        | 1.34                         | 14.941 CC, ES        |                    |        |
| 500.0  | 500.0                     | 500.0                     | 500.0                     | 0.8               | 0.8            | 164.04                      | 17.5                                    | 9.9           | 21.8                       | 20.1                        | 1.69                         | 12.852               |                    |        |
| 600.0  | 599.8                     | 600.6                     | 600.5                     | 1.0               | 1.0            | 164.84                      | 16.8                                    | 8.2           | 25.4                       | 23.4                        | 2.04                         | 12.440               |                    |        |
| 700.0  | 699.5                     | 701.2                     | 701.1                     | 1.3               | 1.2            | 163.05                      | 14.9                                    | 3.3           | 29.6                       | 27.2                        | 2.40                         | 12.365               |                    |        |
| 800.0  | 798.7                     | 802.0                     | 801.4                     | 1.5               | 1.4            | 159.74                      | 11.7                                    | -5.0          | 34.6                       | 31.8                        | 2.77                         | 12.470               |                    |        |
| 900.0  | 897.5                     | 902.7                     | 901.4                     | 1.8               | 1.7            | 155.63                      | 7.3                                     | -16.5         | 40.3                       | 37.1                        | 3.19                         | 12.645               |                    |        |
| 1,000.0  | 995.6                     | 1,003.4                   | 1,000.8                   | 2.1               | 2.0            | 151.23                      | 1.6                                     | -31.3         | 47.0                       | 43.3                        | 3.67                         | 12.794               |                    |        |
| 1,100.0  | 1,093.3                   | 1,104.2                   | 1,099.7                   | 2.5               | 2.3            | 146.30                      | -5.4                                    | -49.3         | 53.9                       | 49.6                        | 4.27                         | 12.622               |                    |        |
| 1,200.0  | 1,191.0                   | 1,203.8                   | 1,197.2                   | 2.9               | 2.7            | 141.18                      | -12.9                                   | -68.8         | 60.2                       | 55.3                        | 4.95                         | 12.168               |                    |        |
| 1,300.0  | 1,288.6                   | 1,303.5                   | 1,294.6                   | 3.3               | 3.0            | 137.06                      | -20.5                                   | -88.2         | 67.0                       | 61.3                        | 5.68                         | 11.795               |                    |        |
| 1,400.0  | 1,386.3                   | 1,403.2                   | 1,392.1                   | 3.7               | 3.4            | 133.71                      | -28.0                                   | -107.7        | 74.0                       | 67.6                        | 6.44                         | 11.496               |                    |        |
| 1,500.0  | 1,483.9                   | 1,502.8                   | 1,489.5                   | 4.1               | 3.8            | 130.94                      | -35.5                                   | -127.2        | 81.2                       | 74.0                        | 7.22                         | 11.259               |                    |        |
| 1,600.0  | 1,581.6                   | 1,602.5                   | 1,587.0                   | 4.5               | 4.2            | 128.64                      | -43.1                                   | -146.6        | 88.6                       | 80.6                        | 8.01                         | 11.070               |                    |        |
| 1,700.0  | 1,679.2                   | 1,702.2                   | 1,684.5                   | 4.9               | 4.6            | 126.69                      | -50.6                                   | -166.1        | 96.2                       | 87.4                        | 8.81                         | 10.919               |                    |        |
| 1,800.0  | 1,776.9                   | 1,801.8                   | 1,781.9                   | 5.3               | 5.0            | 125.02                      | -58.1                                   | -185.6        | 103.8                      | 94.2                        | 9.61                         | 10.797               |                    |        |
| 1,900.0  | 1,874.5                   | 1,901.5                   | 1,879.4                   | 5.7               | 5.4            | 123.58                      | -65.6                                   | -205.0        | 111.5                      | 101.0                       | 10.42                        | 10.697               |                    |        |
| 2,000.0  | 1,972.2                   | 2,001.2                   | 1,976.8                   | 6.2               | 5.8            | 122.33                      | -73.2                                   | -224.5        | 119.2                      | 108.0                       | 11.23                        | 10.615               |                    |        |
| 2,100.0  | 2,069.9                   | 2,100.9                   | 2,074.3                   | 6.6               | 6.2            | 121.23                      | -80.7                                   | -243.9        | 127.0                      | 115.0                       | 12.04                        | 10.546               |                    |        |
| 2,200.0  | 2,167.5                   | 2,200.5                   | 2,171.8                   | 7.0               | 6.6            | 120.26                      | -88.2                                   | -263.4        | 134.8                      | 122.0                       | 12.86                        | 10.489               |                    |        |
| 2,300.0  | 2,265.2                   | 2,300.2                   | 2,269.2                   | 7.4               | 7.0            | 119.40                      | -95.8                                   | -282.9        | 142.7                      | 129.0                       | 13.67                        | 10.440               |                    |        |
| 2,400.0  | 2,362.8                   | 2,399.9                   | 2,366.7                   | 7.8               | 7.4            | 118.62                      | -103.3                                  | -302.3        | 150.6                      | 136.1                       | 14.48                        | 10.399               |                    |        |
| 2,500.0  | 2,460.5                   | 2,499.5                   | 2,464.1                   | 8.2               | 7.8            | 117.93                      | -110.8                                  | -321.8        | 158.5                      | 143.2                       | 15.30                        | 10.363               |                    |        |
| 2,600.0  | 2,558.1                   | 2,599.2                   | 2,561.6                   | 8.6               | 8.2            | 117.30                      | -118.3                                  | -341.2        | 166.5                      | 150.4                       | 16.11                        | 10.332               |                    |        |
| 2,700.0  | 2,655.8                   | 2,698.9                   | 2,659.0                   | 9.1               | 8.6            | 116.72                      | -125.9                                  | -360.7        | 174.5                      | 157.5                       | 16.93                        | 10.305               |                    |        |
| 2,800.0  | 2,753.5                   | 2,798.5                   | 2,756.5                   | 9.5               | 9.0            | 116.20                      | -133.4                                  | -380.2        | 182.4                      | 164.7                       | 17.74                        | 10.281               |                    |        |
| 2,900.0  | 2,851.1                   | 2,898.2                   | 2,854.0                   | 9.9               | 9.4            | 115.72                      | -140.9                                  | -399.6        | 190.4                      | 171.9                       | 18.56                        | 10.260               |                    |        |
| 3,000.0  | 2,948.8                   | 2,997.9                   | 2,951.4                   | 10.3              | 9.8            | 115.28                      | -148.5                                  | -419.1        | 198.4                      | 179.1                       | 19.38                        | 10.242               |                    |        |
| 3,100.0  | 3,046.4                   | 3,097.5                   | 3,048.9                   | 10.7              | 10.2           | 114.88                      | -156.0                                  | -438.5        | 206.5                      | 186.3                       | 20.19                        | 10.225               |                    |        |
| 3,200.0  | 3,144.1                   | 3,197.2                   | 3,146.3                   | 11.1              | 10.7           | 114.50                      | -163.5                                  | -458.0        | 214.5                      | 193.5                       | 21.01                        | 10.210               |                    |        |
| 3,300.0  | 3,241.7                   | 3,296.9                   | 3,243.8                   | 11.5              | 11.1           | 114.15                      | -171.0                                  | -477.5        | 222.5                      | 200.7                       | 21.82                        | 10.197               |                    |        |
| 3,400.0  | 3,339.4                   | 3,396.5                   | 3,341.3                   | 12.0              | 11.5           | 113.83                      | -178.6                                  | -496.9        | 230.6                      | 207.9                       | 22.64                        | 10.185               |                    |        |
| 3,500.0  | 3,437.1                   | 3,496.2                   | 3,438.7                   | 12.4              | 11.9           | 113.53                      | -186.1                                  | -516.4        | 238.6                      | 215.2                       | 23.45                        | 10.175               |                    |        |
| 3,600.0  | 3,534.7                   | 3,595.9                   | 3,536.2                   | 12.8              | 12.3           | 113.24                      | -193.6                                  | -535.9        | 246.7                      | 222.4                       | 24.27                        | 10.165               |                    |        |
| 3,700.0  | 3,632.4                   | 3,695.5                   | 3,633.6                   | 13.2              | 12.7           | 112.98                      | -201.2                                  | -555.3        | 254.7                      | 229.6                       | 25.08                        | 10.156               |                    |        |
| 3,800.0  | 3,730.0                   | 3,795.2                   | 3,731.1                   | 13.6              | 13.1           | 112.73                      | -208.7                                  | -574.8        | 262.8                      | 236.9                       | 25.90                        | 10.148               |                    |        |
| 3,900.0  | 3,827.7                   | 3,894.9                   | 3,828.6                   | 14.1              | 13.5           | 112.50                      | -216.2                                  | -594.2        | 270.9                      | 244.2                       | 26.71                        | 10.141               |                    |        |
| 4,000.0  | 3,925.3                   | 3,994.5                   | 3,926.0                   | 14.5              | 13.9           | 112.28                      | -223.7                                  | -613.7        | 278.9                      | 251.4                       | 27.53                        | 10.134               |                    |        |
| 4,100.0  | 4,023.0                   | 4,094.2                   | 4,023.5                   | 14.9              | 14.3           | 112.07                      | -231.3                                  | -633.2        | 287.0                      | 258.7                       | 28.34                        | 10.128               |                    |        |
| 4,200.0  | 4,120.7                   | 4,193.9                   | 4,120.9                   | 15.3              | 14.7           | 111.87                      | -238.8                                  | -652.6        | 295.1                      | 265.9                       | 29.15                        | 10.122               |                    |        |
| 4,300.0  | 4,218.3                   | 4,293.5                   | 4,218.4                   | 15.7              | 15.1           | 111.69                      | -246.3                                  | -672.1        | 303.2                      | 273.2                       | 29.97                        | 10.117               |                    |        |
| 4,400.0  | 4,316.0                   | 4,393.2                   | 4,315.9                   | 16.1              | 15.6           | 111.51                      | -253.9                                  | -691.5        | 311.3                      | 280.5                       | 30.78                        | 10.112               |                    |        |
| 4,500.0  | 4,413.6                   | 4,492.9                   | 4,413.3                   | 16.6              | 16.0           | 111.34                      | -261.4                                  | -711.0        | 319.4                      | 287.8                       | 31.60                        | 10.107               |                    |        |
| 4,600.0  | 4,511.3                   | 4,592.6                   | 4,510.8                   | 17.0              | 16.4           | 111.20                      | -268.9                                  | -730.4        | 327.5                      | 295.1                       | 32.41                        | 10.104 SF            |                    |        |
| 4,700.0  | 4,608.9                   | 4,692.3                   | 4,608.8                   | 17.4              | 16.7           | 111.46                      | -275.6                                  | -747.7        | 335.5                      | 302.4                       | 33.12                        | 10.130               |                    |        |
| 4,800.0  | 4,706.6                   | 4,791.8                   | 4,707.1                   | 17.8              | 17.0           | 112.29                      | -281.0                                  | -761.7        | 343.7                      | 309.9                       | 33.73                        | 10.188               |                    |        |
| 4,900.0  | 4,804.2                   | 4,890.8                   | 4,805.5                   | 18.2              | 17.2           | 113.64                      | -285.2                                  | -772.5        | 351.9                      | 317.7                       | 34.22                        | 10.284               |                    |        |
| 5,000.0  | 4,901.9                   | 4,989.2                   | 4,903.5                   | 18.6              | 17.4           | 115.45                      | -288.1                                  | -780.0        | 360.6                      | 326.0                       | 34.58                        | 10.428               |                    |        |
| 5,100.0  | 4,999.6                   | 5,086.6                   | 5,000.8                   | 19.1              | 17.5           | 117.68                      | -289.8                                  | -784.5        | 370.0                      | 335.2                       | 34.80                        | 10.632               |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM02D B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 5,200.0  | 5,097.2                   | 5,183.1                   | 5,097.2                   | 19.5              | 17.6           | 120.25                      | -290.3                                  | -785.8        | 380.4                      | 345.6                       | 34.88                        | 10.908               |                    |        |
| 5,300.0  | 5,194.9                   | 5,281.3                   | 5,195.5                   | 19.9              | 17.7           | 122.91                      | -290.4                                  | -786.0        | 391.8                      | 357.0                       | 34.88                        | 11.235               |                    |        |
| 5,400.0  | 5,292.5                   | 5,379.7                   | 5,293.9                   | 20.3              | 17.8           | 125.36                      | -290.8                                  | -786.6        | 403.9                      | 369.0                       | 34.86                        | 11.587               |                    |        |
| 5,500.0  | 5,390.2                   | 5,477.5                   | 5,391.7                   | 20.7              | 17.9           | 127.64                      | -291.2                                  | -787.3        | 416.5                      | 381.7                       | 34.82                        | 11.962               |                    |        |
| 5,600.0  | 5,487.8                   | 5,575.3                   | 5,489.5                   | 21.2              | 18.0           | 129.78                      | -291.6                                  | -788.0        | 429.8                      | 395.0                       | 34.77                        | 12.361               |                    |        |
| 5,700.0  | 5,585.5                   | 5,673.2                   | 5,587.4                   | 21.6              | 18.1           | 131.80                      | -292.0                                  | -788.7        | 443.6                      | 408.9                       | 34.71                        | 12.781               |                    |        |
| 5,800.0  | 5,683.2                   | 5,771.0                   | 5,685.2                   | 22.0              | 18.2           | 133.69                      | -292.4                                  | -789.5        | 458.0                      | 423.3                       | 34.64                        | 13.220               |                    |        |
| 5,900.0  | 5,780.8                   | 5,868.8                   | 5,783.0                   | 22.4              | 18.4           | 135.47                      | -292.9                                  | -790.2        | 472.8                      | 438.2                       | 34.58                        | 13.674               |                    |        |
| 6,000.0  | 5,878.5                   | 5,966.7                   | 5,880.8                   | 22.8              | 18.5           | 137.14                      | -293.3                                  | -790.9        | 488.1                      | 453.6                       | 34.52                        | 14.140               |                    |        |
| 6,100.0  | 5,976.1                   | 6,064.5                   | 5,978.7                   | 23.2              | 18.6           | 138.71                      | -293.7                                  | -791.7        | 503.7                      | 469.3                       | 34.46                        | 14.617               |                    |        |
| 6,200.0  | 6,073.8                   | 6,162.3                   | 6,076.5                   | 23.7              | 18.7           | 140.19                      | -294.1                                  | -792.4        | 519.7                      | 485.3                       | 34.41                        | 15.102               |                    |        |
| 6,300.0  | 6,171.4                   | 6,260.2                   | 6,174.3                   | 24.1              | 18.8           | 141.58                      | -294.5                                  | -793.1        | 536.1                      | 501.7                       | 34.38                        | 15.594               |                    |        |
| 6,400.0  | 6,269.1                   | 6,358.0                   | 6,272.2                   | 24.5              | 18.9           | 142.92                      | -295.0                                  | -793.8        | 552.6                      | 518.3                       | 34.35                        | 16.090               |                    |        |
| 6,500.0  | 6,367.3                   | 6,456.3                   | 6,370.5                   | 24.8              | 19.0           | 144.19                      | -295.4                                  | -794.6        | 567.6                      | 533.2                       | 34.32                        | 16.537               |                    |        |
| 6,600.0  | 6,466.0                   | 6,555.2                   | 6,469.4                   | 25.1              | 19.1           | 145.17                      | -295.8                                  | -795.3        | 579.8                      | 545.5                       | 34.35                        | 16.881               |                    |        |
| 6,700.0  | 6,565.3                   | 6,654.6                   | 6,568.7                   | 25.4              | 19.2           | 145.90                      | -296.2                                  | -796.1        | 589.4                      | 554.9                       | 34.42                        | 17.120               |                    |        |
| 6,800.0  | 6,664.9                   | 6,754.2                   | 6,668.4                   | 25.6              | 19.4           | 146.38                      | -296.7                                  | -796.8        | 596.1                      | 561.5                       | 34.55                        | 17.254               |                    |        |
| 6,900.0  | 6,764.7                   | 6,854.1                   | 6,768.3                   | 25.7              | 19.5           | 146.64                      | -297.1                                  | -797.5        | 599.9                      | 565.2                       | 34.71                        | 17.282               |                    |        |
| 7,000.0  | 6,864.7                   | 6,954.1                   | 6,868.3                   | 25.8              | 19.6           | 146.69                      | -297.5                                  | -798.3        | 600.8                      | 565.9                       | 34.91                        | 17.207               |                    |        |
| 7,100.0  | 6,964.7                   | 7,054.1                   | 6,968.3                   | 25.9              | 19.7           | 133.44                      | -298.0                                  | -799.0        | 600.3                      | 565.2                       | 35.19                        | 17.061               |                    |        |
| 7,198.3  | 7,063.0                   | 7,152.4                   | 7,066.6                   | 26.0              | 19.8           | 133.43                      | -298.4                                  | -799.8        | 600.2                      | 564.7                       | 35.45                        | 16.929               |                    |        |
| 7,200.0  | 7,064.7                   | 7,154.1                   | 7,068.2                   | 26.0              | 19.8           | 133.43                      | -298.4                                  | -799.8        | 600.2                      | 564.7                       | 35.46                        | 16.927               |                    |        |
| 7,300.0  | 7,164.7                   | 7,254.1                   | 7,168.2                   | 26.1              | 20.0           | 133.44                      | -298.8                                  | -800.5        | 600.3                      | 564.6                       | 35.72                        | 16.806               |                    |        |
| 7,400.0  | 7,264.7                   | 7,354.1                   | 7,268.2                   | 26.2              | 20.1           | 133.48                      | -299.3                                  | -801.3        | 600.7                      | 564.8                       | 35.98                        | 16.696               |                    |        |
| 7,500.0  | 7,364.7                   | 7,454.1                   | 7,368.2                   | 26.3              | 20.2           | 133.52                      | -299.7                                  | -802.0        | 601.1                      | 564.9                       | 36.24                        | 16.589               |                    |        |
| 7,600.0  | 7,464.7                   | 7,554.1                   | 7,468.2                   | 26.4              | 20.3           | 133.56                      | -300.1                                  | -802.8        | 601.5                      | 565.0                       | 36.49                        | 16.483               |                    |        |
| 7,700.0  | 7,564.7                   | 7,654.1                   | 7,568.2                   | 26.5              | 20.5           | 133.60                      | -300.5                                  | -803.5        | 601.9                      | 565.2                       | 36.75                        | 16.377               |                    |        |
| 7,800.0  | 7,664.6                   | 7,754.1                   | 7,668.2                   | 26.6              | 20.6           | 133.64                      | -301.0                                  | -804.3        | 602.3                      | 565.3                       | 37.02                        | 16.272               |                    |        |
| 7,900.0  | 7,764.6                   | 7,854.1                   | 7,768.2                   | 26.7              | 20.7           | 133.68                      | -301.4                                  | -805.0        | 602.7                      | 565.4                       | 37.28                        | 16.168               |                    |        |
| 8,000.0  | 7,864.6                   | 7,954.1                   | 7,868.2                   | 26.8              | 20.8           | 133.72                      | -301.8                                  | -805.7        | 603.1                      | 565.6                       | 37.54                        | 16.065               |                    |        |
| 8,100.0  | 7,964.6                   | 8,054.1                   | 7,968.2                   | 27.0              | 21.0           | 133.76                      | -302.3                                  | -806.5        | 603.5                      | 565.7                       | 37.81                        | 15.963               |                    |        |
| 8,200.0  | 8,064.6                   | 8,154.1                   | 8,068.2                   | 27.1              | 21.1           | 133.80                      | -302.7                                  | -807.2        | 603.9                      | 565.8                       | 38.07                        | 15.862               |                    |        |
| 8,300.0  | 8,164.6                   | 8,254.1                   | 8,168.2                   | 27.2              | 21.2           | 133.84                      | -303.1                                  | -808.0        | 604.3                      | 566.0                       | 38.34                        | 15.761               |                    |        |
| 8,400.0  | 8,264.6                   | 8,354.1                   | 8,268.2                   | 27.3              | 21.3           | 133.88                      | -303.6                                  | -808.7        | 604.7                      | 566.1                       | 38.61                        | 15.662               |                    |        |
| 8,500.0  | 8,364.6                   | 8,454.1                   | 8,368.2                   | 27.4              | 21.5           | 133.92                      | -304.0                                  | -809.5        | 605.1                      | 566.2                       | 38.88                        | 15.563               |                    |        |
| 8,600.0  | 8,464.6                   | 8,554.1                   | 8,468.2                   | 27.5              | 21.6           | 133.96                      | -304.4                                  | -810.2        | 605.5                      | 566.4                       | 39.15                        | 15.465               |                    |        |
| 8,700.0  | 8,564.6                   | 8,654.1                   | 8,568.2                   | 27.6              | 21.7           | 134.00                      | -304.8                                  | -811.0        | 605.9                      | 566.5                       | 39.43                        | 15.368               |                    |        |
| 8,800.0  | 8,664.5                   | 8,754.1                   | 8,668.2                   | 27.8              | 21.9           | 134.03                      | -305.3                                  | -811.7        | 606.3                      | 566.6                       | 39.70                        | 15.272               |                    |        |
| 8,900.0  | 8,764.5                   | 8,854.1                   | 8,768.2                   | 27.9              | 22.0           | 134.07                      | -305.7                                  | -812.4        | 606.7                      | 566.8                       | 39.98                        | 15.177               |                    |        |
| 9,000.0  | 8,864.5                   | 8,954.1                   | 8,868.2                   | 28.0              | 22.1           | 134.11                      | -306.1                                  | -813.2        | 607.1                      | 566.9                       | 40.25                        | 15.083               |                    |        |
| 9,100.0  | 8,964.5                   | 9,054.1                   | 8,968.1                   | 28.1              | 22.3           | 134.15                      | -306.6                                  | -813.9        | 607.5                      | 567.0                       | 40.53                        | 14.990               |                    |        |
| 9,200.0  | 9,064.5                   | 9,154.1                   | 9,068.1                   | 28.2              | 22.4           | 134.19                      | -307.0                                  | -814.7        | 607.9                      | 567.1                       | 40.81                        | 14.897               |                    |        |
| 9,300.0  | 9,164.5                   | 9,254.1                   | 9,168.1                   | 28.3              | 22.5           | 134.23                      | -307.4                                  | -815.4        | 608.3                      | 567.3                       | 41.09                        | 14.806               |                    |        |
| 9,400.0  | 9,264.5                   | 9,354.1                   | 9,268.1                   | 28.5              | 22.7           | 134.27                      | -307.8                                  | -816.2        | 608.7                      | 567.4                       | 41.37                        | 14.715               |                    |        |
| 9,500.0  | 9,364.5                   | 9,454.1                   | 9,368.1                   | 28.6              | 22.8           | 134.31                      | -308.3                                  | -816.9        | 609.1                      | 567.5                       | 41.65                        | 14.625               |                    |        |
| 9,600.0  | 9,464.5                   | 9,554.1                   | 9,468.1                   | 28.7              | 22.9           | 134.35                      | -308.7                                  | -817.7        | 609.6                      | 567.6                       | 41.93                        | 14.536               |                    |        |
| 9,700.0  | 9,564.4                   | 9,654.1                   | 9,568.1                   | 28.8              | 23.1           | 134.39                      | -309.1                                  | -818.4        | 610.0                      | 567.7                       | 42.22                        | 14.448               |                    |        |
| 9,800.0  | 9,664.4                   | 9,754.1                   | 9,668.1                   | 29.0              | 23.2           | 134.42                      | -309.6                                  | -819.2        | 610.4                      | 567.9                       | 42.50                        | 14.361               |                    |        |
| 9,900.0  | 9,764.4                   | 9,854.1                   | 9,768.1                   | 29.1              | 23.4           | 134.46                      | -310.0                                  | -819.9        | 610.8                      | 568.0                       | 42.79                        | 14.274               |                    |        |
| 9,951.6  | 9,816.0                   | 9,905.7                   | 9,819.7                   | 29.1              | 23.4           | 134.48                      | -310.2                                  | -820.3        | 611.0                      | 568.0                       | 42.94                        | 14.230               |                    |        |

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



# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07A B21 696 - DD - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   |         | Offset Site Error: | 0.0 ft |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---------|--------------------|--------|
| Survey Program: O-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   |         | Offset Well Error: | 0.0 ft |
| Reference  |                     | Offset              |                     | Semi Major Axis |             | Distance              |                                   |            |                      |                       |                        |                   |         |                    |        |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | Warning |                    |        |
| 0.0  | 0.0                 | 0.0                 | 0.0                 | 0.0             | 0.0         | 28.75                 | 8.7                               | 4.8        | 10.0                 |                       |                        |                   |         |                    |        |
| 100.0  | 100.0               | 100.0               | 100.0               | 0.1             | 0.1         | 28.75                 | 8.7                               | 4.8        | 10.0                 | 9.7                   | 0.30                   | 33.606            |         |                    |        |
| 200.0  | 200.0               | 200.0               | 200.0               | 0.3             | 0.3         | 28.75                 | 8.7                               | 4.8        | 10.0                 | 9.3                   | 0.65                   | 15.441            |         |                    |        |
| 300.0  | 300.0               | 300.0               | 300.0               | 0.5             | 0.5         | 28.75                 | 8.7                               | 4.8        | 10.0                 | 9.0                   | 0.99                   | 10.023            |         |                    |        |
| 400.0  | 400.0               | 400.0               | 400.0               | 0.7             | 0.7         | 28.75                 | 8.7                               | 4.8        | 10.0                 | 8.6                   | 1.34                   | 7.420 CC, ES      |         |                    |        |
| 500.0  | 500.0               | 500.0               | 500.0               | 0.8             | 0.8         | 164.63                | 8.7                               | 4.8        | 11.6                 | 10.0                  | 1.69                   | 6.879 SF          |         |                    |        |
| 600.0  | 599.8               | 600.4               | 600.3               | 1.0             | 1.0         | 167.30                | 7.7                               | 3.4        | 15.1                 | 13.1                  | 2.04                   | 7.396             |         |                    |        |
| 700.0  | 699.5               | 700.8               | 700.7               | 1.3             | 1.2         | 167.60                | 4.6                               | -0.9       | 18.7                 | 16.3                  | 2.39                   | 7.812             |         |                    |        |
| 800.0  | 798.7               | 801.5               | 800.9               | 1.5             | 1.4         | 166.64                | -0.5                              | -8.1       | 22.4                 | 19.6                  | 2.75                   | 8.149             |         |                    |        |
| 900.0  | 897.5               | 902.2               | 900.9               | 1.8             | 1.7         | 164.97                | -7.7                              | -18.1      | 26.2                 | 23.1                  | 3.11                   | 8.416             |         |                    |        |
| 1,000.0  | 995.6               | 1,002.7             | 1,000.2             | 2.1             | 1.9         | 162.99                | -16.9                             | -30.8      | 30.3                 | 26.8                  | 3.50                   | 8.650             |         |                    |        |
| 1,100.0  | 1,093.3             | 1,102.6             | 1,098.7             | 2.5             | 2.2         | 162.05                | -26.5                             | -44.3      | 35.8                 | 31.9                  | 3.90                   | 9.171             |         |                    |        |
| 1,200.0  | 1,191.0             | 1,202.4             | 1,197.1             | 2.9             | 2.6         | 161.41                | -36.1                             | -57.7      | 41.4                 | 37.1                  | 4.32                   | 9.589             |         |                    |        |
| 1,300.0  | 1,288.6             | 1,302.3             | 1,295.6             | 3.3             | 2.9         | 160.92                | -45.8                             | -71.1      | 47.0                 | 42.3                  | 4.74                   | 9.920             |         |                    |        |
| 1,400.0  | 1,386.3             | 1,402.1             | 1,394.0             | 3.7             | 3.2         | 160.53                | -55.4                             | -84.5      | 52.7                 | 47.5                  | 5.17                   | 10.187            |         |                    |        |
| 1,500.0  | 1,483.9             | 1,502.0             | 1,492.5             | 4.1             | 3.5         | 160.22                | -65.1                             | -98.0      | 58.3                 | 52.7                  | 5.60                   | 10.405            |         |                    |        |
| 1,600.0  | 1,581.6             | 1,601.8             | 1,591.0             | 4.5             | 3.8         | 159.97                | -74.7                             | -111.4     | 63.9                 | 57.9                  | 6.04                   | 10.587            |         |                    |        |
| 1,700.0  | 1,679.2             | 1,701.6             | 1,689.4             | 4.9             | 4.2         | 159.75                | -84.4                             | -124.8     | 69.5                 | 63.1                  | 6.47                   | 10.740            |         |                    |        |
| 1,800.0  | 1,776.9             | 1,801.5             | 1,787.9             | 5.3             | 4.5         | 159.57                | -94.0                             | -138.3     | 75.2                 | 68.3                  | 6.92                   | 10.870            |         |                    |        |
| 1,900.0  | 1,874.5             | 1,901.3             | 1,886.4             | 5.7             | 4.8         | 159.41                | -103.6                            | -151.7     | 80.8                 | 73.4                  | 7.36                   | 10.981            |         |                    |        |
| 2,000.0  | 1,972.2             | 2,001.2             | 1,984.8             | 6.2             | 5.2         | 159.27                | -113.3                            | -165.1     | 86.4                 | 78.6                  | 7.80                   | 11.078            |         |                    |        |
| 2,100.0  | 2,069.9             | 2,101.0             | 2,083.3             | 6.6             | 5.5         | 159.15                | -122.9                            | -178.5     | 92.1                 | 83.8                  | 8.25                   | 11.163            |         |                    |        |
| 2,200.0  | 2,167.5             | 2,200.8             | 2,181.8             | 7.0             | 5.8         | 159.05                | -132.6                            | -192.0     | 97.7                 | 89.0                  | 8.69                   | 11.238            |         |                    |        |
| 2,300.0  | 2,265.2             | 2,300.7             | 2,280.2             | 7.4             | 6.2         | 158.95                | -142.2                            | -205.4     | 103.3                | 94.2                  | 9.14                   | 11.304            |         |                    |        |
| 2,400.0  | 2,362.8             | 2,400.5             | 2,378.7             | 7.8             | 6.5         | 158.87                | -151.8                            | -218.8     | 108.9                | 99.4                  | 9.59                   | 11.364            |         |                    |        |
| 2,500.0  | 2,460.5             | 2,500.4             | 2,477.1             | 8.2             | 6.8         | 158.79                | -161.5                            | -232.2     | 114.6                | 104.5                 | 10.04                  | 11.417            |         |                    |        |
| 2,600.0  | 2,558.1             | 2,600.2             | 2,575.6             | 8.6             | 7.2         | 158.72                | -171.1                            | -245.7     | 120.2                | 109.7                 | 10.49                  | 11.465            |         |                    |        |
| 2,700.0  | 2,655.8             | 2,700.0             | 2,674.1             | 9.1             | 7.5         | 158.66                | -180.8                            | -259.1     | 125.8                | 114.9                 | 10.93                  | 11.508            |         |                    |        |
| 2,800.0  | 2,753.5             | 2,799.9             | 2,772.5             | 9.5             | 7.8         | 158.60                | -190.4                            | -272.5     | 131.5                | 120.1                 | 11.39                  | 11.547            |         |                    |        |
| 2,900.0  | 2,851.1             | 2,899.7             | 2,871.0             | 9.9             | 8.2         | 158.55                | -200.1                            | -285.9     | 137.1                | 125.3                 | 11.84                  | 11.584            |         |                    |        |
| 3,000.0  | 2,948.8             | 2,999.6             | 2,969.5             | 10.3            | 8.5         | 158.50                | -209.7                            | -299.4     | 142.7                | 130.4                 | 12.29                  | 11.617            |         |                    |        |
| 3,100.0  | 3,046.4             | 3,099.4             | 3,067.9             | 10.7            | 8.8         | 158.45                | -219.3                            | -312.8     | 148.4                | 135.6                 | 12.74                  | 11.647            |         |                    |        |
| 3,200.0  | 3,144.1             | 3,199.3             | 3,166.4             | 11.1            | 9.2         | 158.41                | -229.0                            | -326.2     | 154.0                | 140.8                 | 13.19                  | 11.675            |         |                    |        |
| 3,300.0  | 3,241.7             | 3,299.1             | 3,264.8             | 11.5            | 9.5         | 158.37                | -238.6                            | -339.6     | 159.6                | 146.0                 | 13.64                  | 11.701            |         |                    |        |
| 3,400.0  | 3,339.4             | 3,398.9             | 3,363.3             | 12.0            | 9.9         | 158.34                | -248.3                            | -353.1     | 165.3                | 151.2                 | 14.09                  | 11.725            |         |                    |        |
| 3,500.0  | 3,437.1             | 3,498.8             | 3,461.8             | 12.4            | 10.2        | 158.30                | -257.9                            | -366.5     | 170.9                | 156.3                 | 14.55                  | 11.748            |         |                    |        |
| 3,600.0  | 3,534.7             | 3,598.6             | 3,560.2             | 12.8            | 10.5        | 158.27                | -267.6                            | -379.9     | 176.5                | 161.5                 | 15.00                  | 11.769            |         |                    |        |
| 3,700.0  | 3,632.4             | 3,698.5             | 3,658.7             | 13.2            | 10.9        | 158.24                | -277.2                            | -393.3     | 182.2                | 166.7                 | 15.45                  | 11.788            |         |                    |        |
| 3,800.0  | 3,730.0             | 3,798.3             | 3,757.2             | 13.6            | 11.2        | 158.21                | -286.8                            | -406.8     | 187.8                | 171.9                 | 15.91                  | 11.807            |         |                    |        |
| 3,900.0  | 3,827.7             | 3,898.1             | 3,855.6             | 14.1            | 11.5        | 158.19                | -296.5                            | -420.2     | 193.4                | 177.1                 | 16.36                  | 11.824            |         |                    |        |
| 4,000.0  | 3,925.3             | 3,998.0             | 3,954.1             | 14.5            | 11.9        | 158.16                | -306.1                            | -433.6     | 199.1                | 182.2                 | 16.81                  | 11.840            |         |                    |        |
| 4,100.0  | 4,023.0             | 4,097.8             | 4,052.6             | 14.9            | 12.2        | 158.14                | -315.8                            | -447.0     | 204.7                | 187.4                 | 17.27                  | 11.855            |         |                    |        |
| 4,200.0  | 4,120.7             | 4,197.7             | 4,151.0             | 15.3            | 12.6        | 158.12                | -325.4                            | -460.5     | 210.3                | 192.6                 | 17.72                  | 11.869            |         |                    |        |
| 4,300.0  | 4,218.3             | 4,297.5             | 4,249.5             | 15.7            | 12.9        | 158.10                | -335.0                            | -473.9     | 216.0                | 197.8                 | 18.17                  | 11.883            |         |                    |        |
| 4,400.0  | 4,316.0             | 4,397.3             | 4,347.9             | 16.1            | 13.2        | 158.08                | -344.7                            | -487.3     | 221.6                | 203.0                 | 18.63                  | 11.896            |         |                    |        |
| 4,500.0  | 4,413.6             | 4,497.2             | 4,446.4             | 16.6            | 13.6        | 158.06                | -354.3                            | -500.7     | 227.2                | 208.1                 | 19.08                  | 11.908            |         |                    |        |
| 4,600.0  | 4,511.3             | 4,597.0             | 4,544.9             | 17.0            | 13.9        | 158.04                | -364.0                            | -514.2     | 232.9                | 213.3                 | 19.54                  | 11.920            |         |                    |        |
| 4,700.0  | 4,608.9             | 4,696.9             | 4,643.3             | 17.4            | 14.3        | 158.02                | -373.6                            | -527.6     | 238.5                | 218.5                 | 19.99                  | 11.931            |         |                    |        |
| 4,800.0  | 4,706.6             | 4,796.7             | 4,741.8             | 17.8            | 14.6        | 158.01                | -383.3                            | -541.0     | 244.1                | 223.7                 | 20.44                  | 11.941            |         |                    |        |
| 4,900.0  | 4,804.2             | 4,896.6             | 4,840.3             | 18.2            | 14.9        | 157.99                | -392.9                            | -554.5     | 249.7                | 228.9                 | 20.90                  | 11.951            |         |                    |        |
| 5,000.0  | 4,901.9             | 4,996.4             | 4,938.7             | 18.6            | 15.3        | 157.98                | -402.5                            | -567.9     | 255.4                | 234.0                 | 21.35                  | 11.960            |         |                    |        |
| 5,100.0  | 4,999.6             | 5,096.2             | 5,037.2             | 19.1            | 15.6        | 157.96                | -412.2                            | -581.3     | 261.0                | 239.2                 | 21.81                  | 11.969            |         |                    |        |

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



# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07A B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 5,200.0  | 5,097.2                   | 5,196.1                   | 5,135.7                   | 19.5              | 15.9           | 157.95                      | -421.8                                  | -594.7        | 266.6                      | 244.4                       | 22.26                        | 11.978               |                    |        |
| 5,300.0  | 5,194.9                   | 5,295.9                   | 5,234.1                   | 19.9              | 16.3           | 157.93                      | -431.5                                  | -608.2        | 272.3                      | 249.6                       | 22.72                        | 11.986               |                    |        |
| 5,400.0  | 5,292.5                   | 5,395.8                   | 5,332.6                   | 20.3              | 16.6           | 157.92                      | -441.1                                  | -621.6        | 277.9                      | 254.7                       | 23.17                        | 11.994               |                    |        |
| 5,500.0  | 5,390.2                   | 5,495.6                   | 5,431.0                   | 20.7              | 17.0           | 157.91                      | -450.8                                  | -635.0        | 283.5                      | 259.9                       | 23.62                        | 12.002               |                    |        |
| 5,600.0  | 5,487.8                   | 5,595.4                   | 5,529.5                   | 21.2              | 17.3           | 157.90                      | -460.4                                  | -648.4        | 289.2                      | 265.1                       | 24.08                        | 12.009               |                    |        |
| 5,700.0  | 5,585.5                   | 5,695.3                   | 5,628.0                   | 21.6              | 17.6           | 157.89                      | -470.0                                  | -661.9        | 294.8                      | 270.3                       | 24.53                        | 12.016               |                    |        |
| 5,800.0  | 5,683.2                   | 5,795.1                   | 5,726.4                   | 22.0              | 18.0           | 157.88                      | -479.7                                  | -675.3        | 300.4                      | 275.5                       | 24.99                        | 12.023               |                    |        |
| 5,900.0  | 5,780.8                   | 5,895.0                   | 5,824.9                   | 22.4              | 18.3           | 157.87                      | -489.3                                  | -688.7        | 306.1                      | 280.6                       | 25.44                        | 12.029               |                    |        |
| 6,000.0  | 5,878.5                   | 5,994.8                   | 5,923.4                   | 22.8              | 18.7           | 157.86                      | -499.0                                  | -702.1        | 311.7                      | 285.8                       | 25.90                        | 12.035               |                    |        |
| 6,100.0  | 5,976.1                   | 6,094.6                   | 6,021.8                   | 23.2              | 19.0           | 157.85                      | -508.6                                  | -715.6        | 317.3                      | 291.0                       | 26.35                        | 12.041               |                    |        |
| 6,200.0  | 6,073.8                   | 6,194.5                   | 6,120.3                   | 23.7              | 19.3           | 157.84                      | -518.2                                  | -729.0        | 323.0                      | 296.2                       | 26.81                        | 12.047               |                    |        |
| 6,300.0  | 6,171.4                   | 6,294.3                   | 6,218.8                   | 24.1              | 19.7           | 157.83                      | -527.9                                  | -742.4        | 328.6                      | 301.3                       | 27.26                        | 12.053               |                    |        |
| 6,400.0  | 6,269.1                   | 6,394.2                   | 6,317.2                   | 24.5              | 20.0           | 157.82                      | -537.5                                  | -755.8        | 334.2                      | 306.5                       | 27.72                        | 12.054               |                    |        |
| 6,500.0  | 6,367.3                   | 6,493.3                   | 6,414.9                   | 24.8              | 20.3           | 157.69                      | -547.1                                  | -769.2        | 337.6                      | 309.3                       | 28.22                        | 11.960               |                    |        |
| 6,600.0  | 6,466.0                   | 6,583.9                   | 6,504.6                   | 25.1              | 20.6           | 157.49                      | -554.9                                  | -780.0        | 339.3                      | 310.6                       | 28.68                        | 11.830               |                    |        |
| 6,700.0  | 6,565.3                   | 6,674.6                   | 6,594.7                   | 25.4              | 20.8           | 157.33                      | -561.0                                  | -788.5        | 340.6                      | 311.5                       | 29.09                        | 11.711               |                    |        |
| 6,800.0  | 6,664.9                   | 6,765.3                   | 6,685.0                   | 25.6              | 21.0           | 157.21                      | -565.4                                  | -794.7        | 341.4                      | 312.0                       | 29.43                        | 11.600               |                    |        |
| 6,900.0  | 6,764.7                   | 6,866.0                   | 6,775.6                   | 25.7              | 21.1           | 157.12                      | -568.2                                  | -798.6        | 341.8                      | 312.0                       | 29.73                        | 11.496               |                    |        |
| 7,000.0  | 6,864.7                   | 6,946.6                   | 6,866.2                   | 25.8              | 21.2           | 157.06                      | -569.3                                  | -800.1        | 341.6                      | 311.6                       | 29.97                        | 11.399               |                    |        |
| 7,028.0  | 6,892.7                   | 6,973.3                   | 6,892.9                   | 25.8              | 21.3           | 146.65                      | -569.4                                  | -800.2        | 341.6                      | 311.5                       | 30.05                        | 11.368               |                    |        |
| 7,100.0  | 6,964.7                   | 7,046.1                   | 6,965.7                   | 25.9              | 21.3           | 143.86                      | -569.4                                  | -800.3        | 341.6                      | 311.3                       | 30.26                        | 11.289               |                    |        |
| 7,200.0  | 7,064.7                   | 7,147.3                   | 7,066.9                   | 26.0              | 21.5           | 143.87                      | -569.7                                  | -800.8        | 341.7                      | 311.1                       | 30.56                        | 11.179               |                    |        |
| 7,300.0  | 7,164.7                   | 7,248.6                   | 7,168.1                   | 26.1              | 21.6           | 143.87                      | -570.3                                  | -801.7        | 341.7                      | 310.8                       | 30.87                        | 11.069               |                    |        |
| 7,400.0  | 7,264.7                   | 7,349.1                   | 7,268.6                   | 26.2              | 21.7           | 143.87                      | -571.0                                  | -802.9        | 341.7                      | 310.5                       | 31.18                        | 10.961               |                    |        |
| 7,500.0  | 7,364.7                   | 7,449.1                   | 7,368.6                   | 26.3              | 21.8           | 143.87                      | -571.7                                  | -804.2        | 341.7                      | 310.2                       | 31.48                        | 10.855               |                    |        |
| 7,600.0  | 7,464.7                   | 7,549.1                   | 7,468.6                   | 26.4              | 21.9           | 143.87                      | -572.4                                  | -805.4        | 341.7                      | 309.9                       | 31.79                        | 10.750               |                    |        |
| 7,700.0  | 7,564.7                   | 7,649.1                   | 7,568.6                   | 26.5              | 22.1           | 143.87                      | -573.1                                  | -806.7        | 341.7                      | 309.6                       | 32.09                        | 10.648               |                    |        |
| 7,800.0  | 7,664.6                   | 7,749.1                   | 7,668.6                   | 26.6              | 22.2           | 143.87                      | -573.8                                  | -807.9        | 341.7                      | 309.3                       | 32.40                        | 10.547               |                    |        |
| 7,900.0  | 7,764.6                   | 7,849.1                   | 7,768.6                   | 26.7              | 22.3           | 143.87                      | -574.5                                  | -809.2        | 341.7                      | 309.0                       | 32.71                        | 10.447               |                    |        |
| 8,000.0  | 7,864.6                   | 7,949.1                   | 7,868.6                   | 26.8              | 22.4           | 143.87                      | -575.3                                  | -810.4        | 341.7                      | 308.7                       | 33.02                        | 10.349               |                    |        |
| 8,100.0  | 7,964.6                   | 8,049.1                   | 7,968.6                   | 27.0              | 22.6           | 143.87                      | -576.0                                  | -811.6        | 341.7                      | 308.4                       | 33.33                        | 10.253               |                    |        |
| 8,200.0  | 8,064.6                   | 8,149.1                   | 8,068.6                   | 27.1              | 22.7           | 143.87                      | -576.7                                  | -812.9        | 341.7                      | 308.1                       | 33.64                        | 10.158               |                    |        |
| 8,300.0  | 8,164.6                   | 8,249.1                   | 8,168.6                   | 27.2              | 22.8           | 143.87                      | -577.4                                  | -814.1        | 341.7                      | 307.8                       | 33.95                        | 10.065               |                    |        |
| 8,400.0  | 8,264.6                   | 8,349.1                   | 8,268.5                   | 27.3              | 23.0           | 143.87                      | -578.1                                  | -815.4        | 341.7                      | 307.5                       | 34.27                        | 9.973                |                    |        |
| 8,500.0  | 8,364.6                   | 8,449.1                   | 8,368.5                   | 27.4              | 23.1           | 143.87                      | -578.8                                  | -816.6        | 341.7                      | 307.2                       | 34.58                        | 9.883                |                    |        |
| 8,600.0  | 8,464.6                   | 8,549.1                   | 8,468.5                   | 27.5              | 23.2           | 143.87                      | -579.6                                  | -817.9        | 341.7                      | 306.8                       | 34.89                        | 9.794                |                    |        |
| 8,700.0  | 8,564.6                   | 8,649.1                   | 8,568.5                   | 27.6              | 23.4           | 143.87                      | -580.3                                  | -819.1        | 341.7                      | 306.5                       | 35.21                        | 9.707                |                    |        |
| 8,800.0  | 8,664.5                   | 8,749.1                   | 8,668.5                   | 27.8              | 23.5           | 143.87                      | -581.0                                  | -820.4        | 341.7                      | 306.2                       | 35.52                        | 9.620                |                    |        |
| 8,900.0  | 8,764.5                   | 8,849.1                   | 8,768.5                   | 27.9              | 23.6           | 143.87                      | -581.7                                  | -821.6        | 341.7                      | 305.9                       | 35.84                        | 9.536                |                    |        |
| 9,000.0  | 8,864.5                   | 8,949.1                   | 8,868.5                   | 28.0              | 23.7           | 143.87                      | -582.4                                  | -822.9        | 341.7                      | 305.6                       | 36.16                        | 9.452                |                    |        |
| 9,100.0  | 8,964.5                   | 9,049.1                   | 8,968.5                   | 28.1              | 23.9           | 143.87                      | -583.1                                  | -824.1        | 341.8                      | 305.3                       | 36.47                        | 9.370                |                    |        |
| 9,200.0  | 9,064.5                   | 9,149.1                   | 9,068.5                   | 28.2              | 24.0           | 143.87                      | -583.9                                  | -825.3        | 341.8                      | 305.0                       | 36.79                        | 9.289                |                    |        |
| 9,300.0  | 9,164.5                   | 9,249.1                   | 9,168.4                   | 28.3              | 24.2           | 143.87                      | -584.6                                  | -826.6        | 341.8                      | 304.6                       | 37.11                        | 9.209                |                    |        |
| 9,400.0  | 9,264.5                   | 9,349.1                   | 9,268.4                   | 28.5              | 24.3           | 143.87                      | -585.3                                  | -827.8        | 341.8                      | 304.3                       | 37.43                        | 9.131                |                    |        |
| 9,500.0  | 9,364.5                   | 9,449.1                   | 9,368.4                   | 28.6              | 24.4           | 143.87                      | -586.0                                  | -829.1        | 341.8                      | 304.0                       | 37.75                        | 9.054                |                    |        |
| 9,600.0  | 9,464.5                   | 9,549.1                   | 9,468.4                   | 28.7              | 24.6           | 143.87                      | -586.7                                  | -830.3        | 341.8                      | 303.7                       | 38.07                        | 8.978                |                    |        |
| 9,700.0  | 9,564.4                   | 9,649.1                   | 9,568.4                   | 28.8              | 24.7           | 143.87                      | -587.4                                  | -831.6        | 341.8                      | 303.4                       | 38.39                        | 8.903                |                    |        |
| 9,800.0  | 9,664.4                   | 9,749.1                   | 9,668.4                   | 29.0              | 24.8           | 143.87                      | -588.2                                  | -832.8        | 341.8                      | 303.1                       | 38.71                        | 8.829                |                    |        |
| 9,900.0  | 9,764.4                   | 9,849.1                   | 9,768.4                   | 29.1              | 25.0           | 143.86                      | -588.9                                  | -834.1        | 341.8                      | 302.7                       | 39.03                        | 8.756                |                    |        |
| 9,951.6  | 9,816.0                   | 9,900.6                   | 9,820.0                   | 29.1              | 25.0           | 143.86                      | -589.2                                  | -834.7        | 341.8                      | 302.6                       | 39.20                        | 8.719                |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07C B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 0.0  | 0.0                       | 0.0                       | 0.0                       | 0.0               | 0.0            | -150.03                     | -17.1                                   | -9.9          | 19.8                       |                             |                              |                      |                    |        |
| 100.0  | 100.0                     | 100.0                     | 100.0                     | 0.1               | 0.1            | -150.03                     | -17.1                                   | -9.9          | 19.8                       | 19.5                        | 0.30                         | 66.621               |                    |        |
| 200.0  | 200.0                     | 200.0                     | 200.0                     | 0.3               | 0.3            | -150.03                     | -17.1                                   | -9.9          | 19.8                       | 19.1                        | 0.65                         | 30.610               |                    |        |
| 300.0  | 300.0                     | 300.0                     | 300.0                     | 0.5               | 0.5            | -150.03                     | -17.1                                   | -9.9          | 19.8                       | 18.8                        | 0.99                         | 19.869 CC, ES        |                    |        |
| 400.0  | 400.0                     | 399.3                     | 399.3                     | 0.7               | 0.7            | -149.21                     | -18.4                                   | -11.0         | 21.5                       | 20.1                        | 1.34                         | 15.971               |                    |        |
| 500.0  | 500.0                     | 498.4                     | 498.3                     | 0.8               | 0.9            | -15.10                      | -22.4                                   | -14.3         | 24.9                       | 23.2                        | 1.69                         | 14.744               |                    |        |
| 600.0  | 599.8                     | 597.5                     | 596.9                     | 1.0               | 1.1            | -15.21                      | -28.9                                   | -19.9         | 28.4                       | 26.4                        | 2.04                         | 13.943               |                    |        |
| 700.0  | 699.5                     | 696.4                     | 695.1                     | 1.3               | 1.3            | -15.99                      | -38.0                                   | -27.6         | 32.0                       | 29.6                        | 2.39                         | 13.382               |                    |        |
| 800.0  | 798.7                     | 795.2                     | 792.7                     | 1.5               | 1.6            | -17.22                      | -49.7                                   | -37.5         | 35.6                       | 32.8                        | 2.75                         | 12.953               |                    |        |
| 900.0  | 897.5                     | 893.8                     | 889.6                     | 1.8               | 2.0            | -18.78                      | -63.9                                   | -49.5         | 39.3                       | 36.1                        | 3.12                         | 12.589               |                    |        |
| 1,000.0  | 995.6                     | 992.4                     | 985.6                     | 2.1               | 2.4            | -20.56                      | -80.6                                   | -63.7         | 43.0                       | 39.5                        | 3.52                         | 12.240               |                    |        |
| 1,100.0  | 1,093.3                   | 1,091.5                   | 1,081.6                   | 2.5               | 2.8            | -22.18                      | -99.7                                   | -79.9         | 47.5                       | 43.6                        | 3.95                         | 12.039               |                    |        |
| 1,200.0  | 1,191.0                   | 1,191.4                   | 1,178.1                   | 2.9               | 3.3            | -23.43                      | -119.2                                  | -96.4         | 52.4                       | 48.0                        | 4.40                         | 11.908               |                    |        |
| 1,300.0  | 1,288.6                   | 1,291.3                   | 1,274.7                   | 3.3               | 3.8            | -24.47                      | -138.7                                  | -113.0        | 57.3                       | 52.4                        | 4.87                         | 11.767               |                    |        |
| 1,400.0  | 1,386.3                   | 1,391.1                   | 1,371.2                   | 3.7               | 4.2            | -25.34                      | -158.3                                  | -129.6        | 62.2                       | 56.9                        | 5.35                         | 11.625               |                    |        |
| 1,500.0  | 1,483.9                   | 1,491.0                   | 1,467.7                   | 4.1               | 4.7            | -26.08                      | -177.8                                  | -146.1        | 67.1                       | 61.3                        | 5.84                         | 11.488               |                    |        |
| 1,600.0  | 1,581.6                   | 1,590.9                   | 1,564.3                   | 4.5               | 5.2            | -26.72                      | -197.3                                  | -162.7        | 72.1                       | 65.7                        | 6.34                         | 11.357               |                    |        |
| 1,700.0  | 1,679.2                   | 1,690.8                   | 1,660.8                   | 4.9               | 5.7            | -27.28                      | -216.8                                  | -179.2        | 77.0                       | 70.1                        | 6.85                         | 11.234               |                    |        |
| 1,800.0  | 1,776.9                   | 1,790.6                   | 1,757.3                   | 5.3               | 6.1            | -27.78                      | -236.4                                  | -195.8        | 81.9                       | 74.6                        | 7.37                         | 11.120               |                    |        |
| 1,900.0  | 1,874.5                   | 1,890.5                   | 1,853.9                   | 5.7               | 6.6            | -28.21                      | -255.9                                  | -212.3        | 86.9                       | 79.0                        | 7.89                         | 11.014               |                    |        |
| 2,000.0  | 1,972.2                   | 1,990.4                   | 1,950.4                   | 6.2               | 7.1            | -28.60                      | -275.4                                  | -228.9        | 91.8                       | 83.4                        | 8.41                         | 10.915               |                    |        |
| 2,100.0  | 2,069.9                   | 2,090.3                   | 2,047.0                   | 6.6               | 7.6            | -28.95                      | -294.9                                  | -245.5        | 96.8                       | 87.9                        | 8.94                         | 10.824               |                    |        |
| 2,200.0  | 2,167.5                   | 2,190.1                   | 2,143.5                   | 7.0               | 8.1            | -29.27                      | -314.5                                  | -262.0        | 101.8                      | 92.3                        | 9.48                         | 10.740               |                    |        |
| 2,300.0  | 2,265.2                   | 2,290.0                   | 2,240.0                   | 7.4               | 8.5            | -29.55                      | -334.0                                  | -278.6        | 106.7                      | 96.7                        | 10.01                        | 10.662               |                    |        |
| 2,400.0  | 2,362.8                   | 2,389.9                   | 2,336.6                   | 7.8               | 9.0            | -29.81                      | -353.5                                  | -295.1        | 111.7                      | 101.2                       | 10.55                        | 10.590               |                    |        |
| 2,500.0  | 2,460.5                   | 2,489.8                   | 2,433.1                   | 8.2               | 9.5            | -30.05                      | -373.1                                  | -311.7        | 116.7                      | 105.6                       | 11.09                        | 10.523               |                    |        |
| 2,600.0  | 2,558.1                   | 2,589.6                   | 2,529.7                   | 8.6               | 10.0           | -30.27                      | -392.6                                  | -328.2        | 121.6                      | 110.0                       | 11.63                        | 10.460               |                    |        |
| 2,700.0  | 2,655.8                   | 2,689.5                   | 2,626.2                   | 9.1               | 10.5           | -30.47                      | -412.1                                  | -344.8        | 126.6                      | 114.4                       | 12.17                        | 10.402               |                    |        |
| 2,800.0  | 2,753.5                   | 2,789.4                   | 2,722.7                   | 9.5               | 10.9           | -30.66                      | -431.6                                  | -361.4        | 131.6                      | 118.9                       | 12.72                        | 10.347               |                    |        |
| 2,900.0  | 2,851.1                   | 2,889.3                   | 2,819.3                   | 9.9               | 11.4           | -30.83                      | -451.2                                  | -377.9        | 136.6                      | 123.3                       | 13.26                        | 10.297               |                    |        |
| 3,000.0  | 2,948.8                   | 2,989.1                   | 2,915.8                   | 10.3              | 11.9           | -30.99                      | -470.7                                  | -394.5        | 141.5                      | 127.7                       | 13.81                        | 10.249               |                    |        |
| 3,100.0  | 3,046.4                   | 3,089.0                   | 3,012.3                   | 10.7              | 12.4           | -31.14                      | -490.2                                  | -411.0        | 146.5                      | 132.2                       | 14.36                        | 10.204               |                    |        |
| 3,200.0  | 3,144.1                   | 3,188.9                   | 3,108.9                   | 11.1              | 12.9           | -31.28                      | -509.7                                  | -427.6        | 151.5                      | 136.6                       | 14.91                        | 10.162               |                    |        |
| 3,300.0  | 3,241.7                   | 3,288.8                   | 3,205.4                   | 11.5              | 13.4           | -31.41                      | -529.3                                  | -444.1        | 156.5                      | 141.0                       | 15.46                        | 10.123               |                    |        |
| 3,400.0  | 3,339.4                   | 3,388.6                   | 3,302.0                   | 12.0              | 13.9           | -31.54                      | -548.8                                  | -460.7        | 161.5                      | 145.5                       | 16.01                        | 10.086               |                    |        |
| 3,500.0  | 3,437.1                   | 3,488.5                   | 3,398.5                   | 12.4              | 14.3           | -31.65                      | -568.3                                  | -477.3        | 166.4                      | 149.9                       | 16.56                        | 10.050               |                    |        |
| 3,600.0  | 3,534.7                   | 3,588.4                   | 3,495.0                   | 12.8              | 14.8           | -31.76                      | -587.8                                  | -493.8        | 171.4                      | 154.3                       | 17.11                        | 10.017               |                    |        |
| 3,700.0  | 3,632.4                   | 3,688.3                   | 3,591.6                   | 13.2              | 15.3           | -31.86                      | -607.4                                  | -510.4        | 176.4                      | 158.7                       | 17.67                        | 9.986                |                    |        |
| 3,800.0  | 3,730.0                   | 3,788.1                   | 3,688.1                   | 13.6              | 15.8           | -31.96                      | -626.9                                  | -526.9        | 181.4                      | 163.2                       | 18.22                        | 9.956                |                    |        |
| 3,900.0  | 3,827.7                   | 3,888.0                   | 3,784.7                   | 14.1              | 16.3           | -32.05                      | -646.4                                  | -543.5        | 186.4                      | 167.6                       | 18.77                        | 9.928                |                    |        |
| 4,000.0  | 3,925.3                   | 3,987.9                   | 3,881.2                   | 14.5              | 16.8           | -32.14                      | -665.9                                  | -560.1        | 191.4                      | 172.0                       | 19.33                        | 9.901                |                    |        |
| 4,100.0  | 4,023.0                   | 4,087.8                   | 3,977.7                   | 14.9              | 17.2           | -32.22                      | -685.5                                  | -576.6        | 196.4                      | 176.5                       | 19.88                        | 9.875                |                    |        |
| 4,200.0  | 4,120.7                   | 4,187.6                   | 4,074.3                   | 15.3              | 17.7           | -32.30                      | -705.0                                  | -593.2        | 201.3                      | 180.9                       | 20.44                        | 9.851                |                    |        |
| 4,300.0  | 4,218.3                   | 4,287.5                   | 4,170.8                   | 15.7              | 18.2           | -32.37                      | -724.5                                  | -609.7        | 206.3                      | 185.3                       | 20.99                        | 9.828                |                    |        |
| 4,400.0  | 4,316.0                   | 4,387.4                   | 4,267.3                   | 16.1              | 18.7           | -32.45                      | -744.1                                  | -626.3        | 211.3                      | 189.8                       | 21.55                        | 9.805                |                    |        |
| 4,500.0  | 4,413.6                   | 4,487.3                   | 4,363.9                   | 16.6              | 19.2           | -32.51                      | -763.6                                  | -642.8        | 216.3                      | 194.2                       | 22.11                        | 9.784                |                    |        |
| 4,600.0  | 4,511.3                   | 4,587.1                   | 4,460.4                   | 17.0              | 19.7           | -32.58                      | -783.1                                  | -659.4        | 221.3                      | 198.6                       | 22.66                        | 9.764                |                    |        |
| 4,700.0  | 4,608.9                   | 4,687.0                   | 4,557.0                   | 17.4              | 20.1           | -32.64                      | -802.6                                  | -676.0        | 226.3                      | 203.0                       | 23.22                        | 9.745                |                    |        |
| 4,800.0  | 4,706.6                   | 4,786.9                   | 4,653.5                   | 17.8              | 20.6           | -32.70                      | -822.2                                  | -692.5        | 231.3                      | 207.5                       | 23.78                        | 9.726                |                    |        |
| 4,900.0  | 4,804.2                   | 4,886.8                   | 4,750.0                   | 18.2              | 21.1           | -32.76                      | -841.7                                  | -709.1        | 236.2                      | 211.9                       | 24.33                        | 9.708                |                    |        |
| 5,000.0  | 4,901.9                   | 4,986.6                   | 4,846.6                   | 18.6              | 21.6           | -32.81                      | -861.2                                  | -725.6        | 241.2                      | 216.3                       | 24.89                        | 9.691                |                    |        |
| 5,100.0  | 4,999.6                   | 5,086.5                   | 4,943.1                   | 19.1              | 22.1           | -32.86                      | -880.7                                  | -742.2        | 246.2                      | 220.8                       | 25.45                        | 9.675                |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07C B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 5,200.0  | 5,097.2                   | 5,186.4                   | 5,039.6                   | 19.5              | 22.6           | -32.91                      | -900.3                                  | -758.7        | 251.2                      | 225.2                       | 26.01                        | 9.659                |                    |        |
| 5,300.0  | 5,194.9                   | 5,286.3                   | 5,136.2                   | 19.9              | 23.1           | -32.96                      | -919.8                                  | -775.3        | 256.2                      | 229.6                       | 26.57                        | 9.644                |                    |        |
| 5,400.0  | 5,292.5                   | 5,386.1                   | 5,232.7                   | 20.3              | 23.5           | -33.01                      | -939.3                                  | -791.9        | 261.2                      | 234.1                       | 27.12                        | 9.629                |                    |        |
| 5,500.0  | 5,390.2                   | 5,486.0                   | 5,329.3                   | 20.7              | 24.0           | -33.05                      | -958.8                                  | -808.4        | 266.2                      | 238.5                       | 27.68                        | 9.615                |                    |        |
| 5,600.0  | 5,487.8                   | 5,585.9                   | 5,425.8                   | 21.2              | 24.5           | -33.10                      | -978.4                                  | -825.0        | 271.2                      | 242.9                       | 28.24                        | 9.602                |                    |        |
| 5,700.0  | 5,585.5                   | 5,685.8                   | 5,522.3                   | 21.6              | 25.0           | -33.14                      | -997.9                                  | -841.5        | 276.1                      | 247.3                       | 28.80                        | 9.588                |                    |        |
| 5,800.0  | 5,683.2                   | 5,785.6                   | 5,618.9                   | 22.0              | 25.5           | -33.18                      | -1,017.4                                | -858.1        | 281.1                      | 251.8                       | 29.36                        | 9.576                |                    |        |
| 5,900.0  | 5,780.8                   | 5,885.5                   | 5,715.4                   | 22.4              | 26.0           | -33.22                      | -1,037.0                                | -874.6        | 286.1                      | 256.2                       | 29.92                        | 9.564                |                    |        |
| 6,000.0  | 5,878.5                   | 5,985.4                   | 5,812.0                   | 22.8              | 26.5           | -33.25                      | -1,056.5                                | -891.2        | 291.1                      | 260.6                       | 30.48                        | 9.552                |                    |        |
| 6,100.0  | 5,976.1                   | 6,085.3                   | 5,908.5                   | 23.2              | 26.9           | -33.29                      | -1,076.0                                | -907.8        | 296.1                      | 265.1                       | 31.04                        | 9.541                |                    |        |
| 6,200.0  | 6,073.8                   | 6,185.1                   | 6,005.0                   | 23.7              | 27.4           | -33.32                      | -1,095.5                                | -924.3        | 301.1                      | 269.5                       | 31.60                        | 9.529                |                    |        |
| 6,300.0  | 6,171.4                   | 6,285.0                   | 6,101.6                   | 24.1              | 27.9           | -33.36                      | -1,115.1                                | -940.9        | 306.1                      | 273.9                       | 32.16                        | 9.519                |                    |        |
| 6,400.0  | 6,269.1                   | 6,393.3                   | 6,206.6                   | 24.5              | 28.4           | -33.50                      | -1,135.2                                | -958.0        | 310.1                      | 277.3                       | 32.78                        | 9.460                |                    |        |
| 6,500.0  | 6,367.3                   | 6,504.0                   | 6,314.8                   | 24.8              | 28.8           | -33.75                      | -1,152.8                                | -972.9        | 312.7                      | 279.3                       | 33.39                        | 9.364                |                    |        |
| 6,600.0  | 6,466.0                   | 6,614.7                   | 6,423.9                   | 25.1              | 29.1           | -33.96                      | -1,167.1                                | -985.0        | 314.7                      | 280.8                       | 33.93                        | 9.277                |                    |        |
| 6,700.0  | 6,565.3                   | 6,725.5                   | 6,533.8                   | 25.4              | 29.4           | -34.13                      | -1,178.3                                | -994.5        | 316.3                      | 281.9                       | 34.39                        | 9.198                |                    |        |
| 6,800.0  | 6,664.9                   | 6,836.3                   | 6,644.1                   | 25.6              | 29.6           | -34.26                      | -1,186.1                                | -1,001.1      | 317.3                      | 282.5                       | 34.77                        | 9.126                |                    |        |
| 6,900.0  | 6,764.7                   | 6,947.2                   | 6,754.8                   | 25.7              | 29.8           | -34.35                      | -1,190.8                                | -1,005.1      | 317.8                      | 282.7                       | 35.07                        | 9.060                |                    |        |
| 7,000.0  | 6,864.7                   | 7,057.1                   | 6,864.6                   | 25.8              | 29.9           | -34.40                      | -1,192.1                                | -1,006.2      | 317.7                      | 282.4                       | 35.30                        | 8.999                |                    |        |
| 7,012.9  | 6,877.6                   | 7,069.8                   | 6,877.4                   | 25.8              | 29.9           | -42.13                      | -1,192.1                                | -1,006.2      | 317.7                      | 282.4                       | 35.34                        | 8.991                |                    |        |
| 7,100.0  | 6,964.7                   | 7,156.1                   | 6,963.7                   | 25.9              | 30.0           | -47.60                      | -1,192.3                                | -1,006.4      | 317.7                      | 282.2                       | 35.56                        | 8.936                |                    |        |
| 7,200.0  | 7,064.7                   | 7,255.2                   | 7,062.8                   | 26.0              | 30.0           | -47.59                      | -1,192.6                                | -1,007.0      | 317.8                      | 281.9                       | 35.82                        | 8.871                |                    |        |
| 7,300.0  | 7,164.7                   | 7,354.3                   | 7,161.8                   | 26.1              | 30.1           | -47.59                      | -1,193.1                                | -1,008.0      | 317.8                      | 281.7                       | 36.09                        | 8.805                |                    |        |
| 7,400.0  | 7,264.7                   | 7,454.1                   | 7,261.6                   | 26.2              | 30.2           | -47.59                      | -1,193.9                                | -1,009.2      | 317.8                      | 281.4                       | 36.37                        | 8.738                |                    |        |
| 7,500.0  | 7,364.7                   | 7,554.1                   | 7,361.6                   | 26.3              | 30.3           | -47.59                      | -1,194.6                                | -1,010.5      | 317.8                      | 281.1                       | 36.64                        | 8.673                |                    |        |
| 7,600.0  | 7,464.7                   | 7,654.1                   | 7,461.6                   | 26.4              | 30.4           | -47.59                      | -1,195.3                                | -1,011.7      | 317.8                      | 280.9                       | 36.92                        | 8.608                |                    |        |
| 7,700.0  | 7,564.7                   | 7,754.1                   | 7,561.6                   | 26.5              | 30.5           | -47.59                      | -1,196.0                                | -1,012.9      | 317.8                      | 280.6                       | 37.20                        | 8.544                |                    |        |
| 7,800.0  | 7,664.6                   | 7,854.1                   | 7,661.6                   | 26.6              | 30.6           | -47.59                      | -1,196.7                                | -1,014.2      | 317.8                      | 280.3                       | 37.47                        | 8.480                |                    |        |
| 7,900.0  | 7,764.6                   | 7,954.1                   | 7,761.6                   | 26.7              | 30.7           | -47.59                      | -1,197.5                                | -1,015.4      | 317.8                      | 280.0                       | 37.76                        | 8.417                |                    |        |
| 8,000.0  | 7,864.6                   | 8,054.1                   | 7,861.5                   | 26.8              | 30.8           | -47.59                      | -1,198.2                                | -1,016.7      | 317.8                      | 279.7                       | 38.04                        | 8.355                |                    |        |
| 8,100.0  | 7,964.6                   | 8,154.1                   | 7,961.5                   | 27.0              | 30.9           | -47.59                      | -1,198.9                                | -1,017.9      | 317.8                      | 279.5                       | 38.32                        | 8.293                |                    |        |
| 8,200.0  | 8,064.6                   | 8,254.1                   | 8,061.5                   | 27.1              | 31.0           | -47.59                      | -1,199.6                                | -1,019.2      | 317.8                      | 279.2                       | 38.60                        | 8.232                |                    |        |
| 8,300.0  | 8,164.6                   | 8,354.1                   | 8,161.5                   | 27.2              | 31.1           | -47.59                      | -1,200.3                                | -1,020.4      | 317.8                      | 278.9                       | 38.89                        | 8.172                |                    |        |
| 8,400.0  | 8,264.6                   | 8,454.1                   | 8,261.5                   | 27.3              | 31.2           | -47.59                      | -1,201.1                                | -1,021.6      | 317.8                      | 278.6                       | 39.17                        | 8.112                |                    |        |
| 8,500.0  | 8,364.6                   | 8,554.1                   | 8,361.5                   | 27.4              | 31.3           | -47.59                      | -1,201.8                                | -1,022.9      | 317.8                      | 278.3                       | 39.46                        | 8.053                |                    |        |
| 8,600.0  | 8,464.6                   | 8,654.1                   | 8,461.5                   | 27.5              | 31.4           | -47.59                      | -1,202.5                                | -1,024.1      | 317.8                      | 278.0                       | 39.75                        | 7.995                |                    |        |
| 8,700.0  | 8,564.6                   | 8,754.1                   | 8,561.5                   | 27.6              | 31.5           | -47.59                      | -1,203.2                                | -1,025.4      | 317.8                      | 277.7                       | 40.04                        | 7.937                |                    |        |
| 8,800.0  | 8,664.5                   | 8,854.1                   | 8,661.5                   | 27.8              | 31.6           | -47.59                      | -1,203.9                                | -1,026.6      | 317.8                      | 277.5                       | 40.33                        | 7.880                |                    |        |
| 8,900.0  | 8,764.5                   | 8,954.1                   | 8,761.5                   | 27.9              | 31.7           | -47.59                      | -1,204.7                                | -1,027.9      | 317.8                      | 277.2                       | 40.62                        | 7.824                |                    |        |
| 9,000.0  | 8,864.5                   | 9,054.1                   | 8,861.4                   | 28.0              | 31.8           | -47.59                      | -1,205.4                                | -1,029.1      | 317.8                      | 276.9                       | 40.91                        | 7.768                |                    |        |
| 9,100.0  | 8,964.5                   | 9,154.1                   | 8,961.4                   | 28.1              | 32.0           | -47.59                      | -1,206.1                                | -1,030.3      | 317.8                      | 276.6                       | 41.20                        | 7.713                |                    |        |
| 9,200.0  | 9,064.5                   | 9,254.1                   | 9,061.4                   | 28.2              | 32.1           | -47.60                      | -1,206.8                                | -1,031.6      | 317.8                      | 276.3                       | 41.50                        | 7.658                |                    |        |
| 9,300.0  | 9,164.5                   | 9,354.1                   | 9,161.4                   | 28.3              | 32.2           | -47.60                      | -1,207.5                                | -1,032.8      | 317.8                      | 276.0                       | 41.79                        | 7.604                |                    |        |
| 9,400.0  | 9,264.5                   | 9,454.1                   | 9,261.4                   | 28.5              | 32.3           | -47.60                      | -1,208.2                                | -1,034.1      | 317.8                      | 275.7                       | 42.09                        | 7.551                |                    |        |
| 9,500.0  | 9,364.5                   | 9,554.1                   | 9,361.4                   | 28.6              | 32.4           | -47.60                      | -1,209.0                                | -1,035.3      | 317.8                      | 275.4                       | 42.38                        | 7.498                |                    |        |
| 9,600.0  | 9,464.5                   | 9,654.1                   | 9,461.4                   | 28.7              | 32.5           | -47.60                      | -1,209.7                                | -1,036.5      | 317.8                      | 275.1                       | 42.68                        | 7.446                |                    |        |
| 9,700.0  | 9,564.4                   | 9,754.1                   | 9,561.4                   | 28.8              | 32.6           | -47.60                      | -1,210.4                                | -1,037.8      | 317.8                      | 274.8                       | 42.98                        | 7.394                |                    |        |
| 9,800.0  | 9,664.4                   | 9,854.1                   | 9,661.4                   | 29.0              | 32.7           | -47.60                      | -1,211.1                                | -1,039.0      | 317.8                      | 274.5                       | 43.28                        | 7.343                |                    |        |
| 9,900.0  | 9,764.4                   | 9,954.1                   | 9,761.3                   | 29.1              | 32.8           | -47.60                      | -1,211.8                                | -1,040.3      | 317.8                      | 274.2                       | 43.58                        | 7.293                |                    |        |
| 9,936.7  | 9,801.1                   | 9,990.8                   | 9,798.1                   | 29.1              | 32.9           | -47.60                      | -1,212.1                                | -1,040.7      | 317.8                      | 274.1                       | 43.69                        | 7.274                |                    |        |
| 9,951.6  | 9,816.0                   | 9,998.7                   | 9,806.0                   | 29.1              | 32.9           | -47.60                      | -1,212.2                                | -1,040.8      | 317.9                      | 274.1                       | 43.72                        | 7.270 SF             |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07D B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 0.0  | 0.0                       | 0.0                       | 0.0                       | 0.0               | 0.0            | -149.85                     | -8.7                                    | -5.1          | 10.1                       |                             |                              |                      |                    |        |
| 100.0  | 100.0                     | 100.0                     | 100.0                     | 0.1               | 0.1            | -149.85                     | -8.7                                    | -5.1          | 10.1                       | 9.8                         | 0.30                         | 34.074               |                    |        |
| 200.0  | 200.0                     | 200.0                     | 200.0                     | 0.3               | 0.3            | -149.85                     | -8.7                                    | -5.1          | 10.1                       | 9.5                         | 0.65                         | 15.655 CC            |                    |        |
| 300.0  | 300.0                     | 299.9                     | 299.9                     | 0.5               | 0.5            | -159.46                     | -9.7                                    | -3.7          | 10.4                       | 9.4                         | 1.00                         | 10.450 ES            |                    |        |
| 400.0  | 400.0                     | 399.5                     | 399.4                     | 0.7               | 0.7            | -172.63                     | -13.2                                   | -1.7          | 13.3                       | 12.0                        | 1.34                         | 9.923 SF             |                    |        |
| 500.0  | 500.0                     | 498.8                     | 498.5                     | 0.8               | 0.9            | -45.74                      | -19.6                                   | -1.6          | 18.5                       | 16.8                        | 1.69                         | 10.900               |                    |        |
| 600.0  | 599.8                     | 598.0                     | 597.3                     | 1.0               | 1.1            | -50.89                      | -28.9                                   | -3.2          | 24.3                       | 22.3                        | 2.05                         | 11.878               |                    |        |
| 700.0  | 699.5                     | 697.0                     | 695.4                     | 1.3               | 1.4            | -55.17                      | -41.1                                   | -6.7          | 31.0                       | 28.5                        | 2.43                         | 12.722               |                    |        |
| 800.0  | 798.7                     | 795.8                     | 793.0                     | 1.5               | 1.7            | -58.78                      | -56.1                                   | -11.9         | 38.4                       | 35.5                        | 2.88                         | 13.336               |                    |        |
| 900.0  | 897.5                     | 894.5                     | 889.7                     | 1.8               | 2.0            | -61.84                      | -74.0                                   | -18.9         | 46.6                       | 43.2                        | 3.41                         | 13.682               |                    |        |
| 1,000.0  | 995.6                     | 992.9                     | 985.5                     | 2.1               | 2.5            | -64.46                      | -94.6                                   | -27.6         | 55.7                       | 51.6                        | 4.04                         | 13.777               |                    |        |
| 1,100.0  | 1,093.3                   | 1,091.2                   | 1,080.5                   | 2.5               | 2.9            | -66.04                      | -117.9                                  | -38.0         | 65.9                       | 61.2                        | 4.74                         | 13.914               |                    |        |
| 1,200.0  | 1,191.0                   | 1,190.6                   | 1,176.1                   | 2.9               | 3.4            | -66.56                      | -142.5                                  | -49.2         | 76.9                       | 71.5                        | 5.45                         | 14.113               |                    |        |
| 1,300.0  | 1,288.6                   | 1,290.0                   | 1,271.8                   | 3.3               | 3.9            | -66.94                      | -167.1                                  | -60.4         | 88.0                       | 81.8                        | 6.18                         | 14.225               |                    |        |
| 1,400.0  | 1,386.3                   | 1,389.4                   | 1,367.4                   | 3.7               | 4.4            | -67.24                      | -191.7                                  | -71.5         | 99.0                       | 92.1                        | 6.93                         | 14.289               |                    |        |
| 1,500.0  | 1,483.9                   | 1,488.8                   | 1,463.1                   | 4.1               | 4.9            | -67.48                      | -216.3                                  | -82.7         | 110.0                      | 102.3                       | 7.68                         | 14.325               |                    |        |
| 1,600.0  | 1,581.6                   | 1,588.2                   | 1,558.7                   | 4.5               | 5.3            | -67.68                      | -240.9                                  | -93.9         | 121.0                      | 112.6                       | 8.44                         | 14.344               |                    |        |
| 1,700.0  | 1,679.2                   | 1,687.6                   | 1,654.4                   | 4.9               | 5.8            | -67.84                      | -265.5                                  | -105.0        | 132.1                      | 122.9                       | 9.20                         | 14.352               |                    |        |
| 1,800.0  | 1,776.9                   | 1,786.9                   | 1,750.0                   | 5.3               | 6.3            | -67.98                      | -290.2                                  | -116.2        | 143.1                      | 133.1                       | 9.97                         | 14.353               |                    |        |
| 1,900.0  | 1,874.5                   | 1,886.3                   | 1,845.6                   | 5.7               | 6.8            | -68.10                      | -314.8                                  | -127.4        | 154.1                      | 143.4                       | 10.74                        | 14.351               |                    |        |
| 2,000.0  | 1,972.2                   | 1,985.7                   | 1,941.3                   | 6.2               | 7.3            | -68.20                      | -339.4                                  | -138.5        | 165.2                      | 153.6                       | 11.51                        | 14.346               |                    |        |
| 2,100.0  | 2,069.9                   | 2,085.1                   | 2,036.9                   | 6.6               | 7.8            | -68.29                      | -364.0                                  | -149.7        | 176.2                      | 163.9                       | 12.29                        | 14.339               |                    |        |
| 2,200.0  | 2,167.5                   | 2,184.5                   | 2,132.6                   | 7.0               | 8.3            | -68.37                      | -388.6                                  | -160.9        | 187.2                      | 174.2                       | 13.06                        | 14.332               |                    |        |
| 2,300.0  | 2,265.2                   | 2,283.9                   | 2,228.2                   | 7.4               | 8.8            | -68.44                      | -413.2                                  | -172.0        | 198.2                      | 184.4                       | 13.84                        | 14.324               |                    |        |
| 2,400.0  | 2,362.8                   | 2,383.3                   | 2,323.9                   | 7.8               | 9.3            | -68.50                      | -437.8                                  | -183.2        | 209.3                      | 194.7                       | 14.62                        | 14.316               |                    |        |
| 2,500.0  | 2,460.5                   | 2,482.7                   | 2,419.5                   | 8.2               | 9.8            | -68.56                      | -462.4                                  | -194.3        | 220.3                      | 204.9                       | 15.40                        | 14.308               |                    |        |
| 2,600.0  | 2,558.1                   | 2,582.1                   | 2,515.2                   | 8.6               | 10.4           | -68.61                      | -487.0                                  | -205.5        | 231.3                      | 215.2                       | 16.18                        | 14.300               |                    |        |
| 2,700.0  | 2,655.8                   | 2,681.4                   | 2,610.8                   | 9.1               | 10.9           | -68.66                      | -511.6                                  | -216.7        | 242.4                      | 225.4                       | 16.96                        | 14.292               |                    |        |
| 2,800.0  | 2,753.5                   | 2,780.8                   | 2,706.5                   | 9.5               | 11.4           | -68.70                      | -536.2                                  | -227.8        | 253.4                      | 235.7                       | 17.74                        | 14.284               |                    |        |
| 2,900.0  | 2,851.1                   | 2,880.2                   | 2,802.1                   | 9.9               | 11.9           | -68.74                      | -560.8                                  | -239.0        | 264.4                      | 245.9                       | 18.52                        | 14.277               |                    |        |
| 3,000.0  | 2,948.8                   | 2,979.6                   | 2,897.8                   | 10.3              | 12.4           | -68.77                      | -585.4                                  | -250.2        | 275.5                      | 256.2                       | 19.30                        | 14.270               |                    |        |
| 3,100.0  | 3,046.4                   | 3,079.0                   | 2,993.4                   | 10.7              | 12.9           | -68.81                      | -610.0                                  | -261.3        | 286.5                      | 266.4                       | 20.09                        | 14.263               |                    |        |
| 3,200.0  | 3,144.1                   | 3,178.4                   | 3,089.0                   | 11.1              | 13.4           | -68.84                      | -634.6                                  | -272.5        | 297.5                      | 276.7                       | 20.87                        | 14.256               |                    |        |
| 3,300.0  | 3,241.7                   | 3,277.8                   | 3,184.7                   | 11.5              | 13.9           | -68.86                      | -659.2                                  | -283.7        | 308.6                      | 286.9                       | 21.65                        | 14.250               |                    |        |
| 3,400.0  | 3,339.4                   | 3,377.2                   | 3,280.3                   | 12.0              | 14.4           | -68.89                      | -683.8                                  | -294.8        | 319.6                      | 297.2                       | 22.44                        | 14.244               |                    |        |
| 3,500.0  | 3,437.1                   | 3,476.6                   | 3,376.0                   | 12.4              | 14.9           | -68.92                      | -708.4                                  | -306.0        | 330.6                      | 307.4                       | 23.22                        | 14.238               |                    |        |
| 3,600.0  | 3,534.7                   | 3,576.0                   | 3,471.6                   | 12.8              | 15.4           | -68.94                      | -733.0                                  | -317.2        | 341.7                      | 317.7                       | 24.01                        | 14.232               |                    |        |
| 3,700.0  | 3,632.4                   | 3,675.3                   | 3,567.3                   | 13.2              | 15.9           | -68.96                      | -757.6                                  | -328.3        | 352.7                      | 327.9                       | 24.79                        | 14.227               |                    |        |
| 3,800.0  | 3,730.0                   | 3,774.7                   | 3,662.9                   | 13.6              | 16.4           | -68.98                      | -782.2                                  | -339.5        | 363.7                      | 338.2                       | 25.58                        | 14.222               |                    |        |
| 3,900.0  | 3,827.7                   | 3,874.1                   | 3,758.6                   | 14.1              | 16.9           | -69.00                      | -806.8                                  | -350.7        | 374.8                      | 348.4                       | 26.36                        | 14.217               |                    |        |
| 4,000.0  | 3,925.3                   | 3,973.5                   | 3,854.2                   | 14.5              | 17.4           | -69.02                      | -831.5                                  | -361.8        | 385.8                      | 358.7                       | 27.15                        | 14.212               |                    |        |
| 4,100.0  | 4,023.0                   | 4,072.9                   | 3,949.9                   | 14.9              | 17.9           | -69.04                      | -856.1                                  | -373.0        | 396.8                      | 368.9                       | 27.93                        | 14.208               |                    |        |
| 4,200.0  | 4,120.7                   | 4,172.3                   | 4,045.5                   | 15.3              | 18.4           | -69.05                      | -880.7                                  | -384.2        | 407.9                      | 379.2                       | 28.72                        | 14.203               |                    |        |
| 4,300.0  | 4,218.3                   | 4,271.7                   | 4,141.2                   | 15.7              | 18.9           | -69.07                      | -905.3                                  | -395.3        | 418.9                      | 389.4                       | 29.50                        | 14.199               |                    |        |
| 4,400.0  | 4,316.0                   | 4,371.1                   | 4,236.8                   | 16.1              | 19.4           | -69.08                      | -929.9                                  | -406.5        | 429.9                      | 399.6                       | 30.29                        | 14.195               |                    |        |
| 4,500.0  | 4,413.6                   | 4,470.5                   | 4,332.4                   | 16.6              | 19.9           | -69.10                      | -954.5                                  | -417.7        | 441.0                      | 409.9                       | 31.07                        | 14.191               |                    |        |
| 4,600.0  | 4,511.3                   | 4,569.8                   | 4,428.1                   | 17.0              | 20.4           | -69.11                      | -979.1                                  | -428.8        | 452.0                      | 420.1                       | 31.86                        | 14.188               |                    |        |
| 4,700.0  | 4,608.9                   | 4,669.2                   | 4,523.7                   | 17.4              | 20.9           | -69.12                      | -1,003.7                                | -440.0        | 463.0                      | 430.4                       | 32.64                        | 14.184               |                    |        |
| 4,800.0  | 4,706.6                   | 4,768.6                   | 4,619.4                   | 17.8              | 21.4           | -69.13                      | -1,028.3                                | -451.2        | 474.1                      | 440.6                       | 33.43                        | 14.181               |                    |        |
| 4,900.0  | 4,804.2                   | 4,868.0                   | 4,715.0                   | 18.2              | 21.9           | -69.14                      | -1,052.9                                | -462.3        | 485.1                      | 450.9                       | 34.22                        | 14.178               |                    |        |
| 5,000.0  | 4,901.9                   | 4,967.4                   | 4,810.7                   | 18.6              | 22.4           | -69.15                      | -1,077.5                                | -473.5        | 496.1                      | 461.1                       | 35.00                        | 14.174               |                    |        |
| 5,100.0  | 4,999.6                   | 5,066.8                   | 4,906.3                   | 19.1              | 23.0           | -69.17                      | -1,102.1                                | -484.7        | 507.2                      | 471.4                       | 35.79                        | 14.171               |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM07D B21 696 - DD - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   | Offset Site Error: 0.0 ft |         |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---------------------------|---------|
| Survey Program: O-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   | Offset Well Error: 0.0 ft |         |
| Reference  |                     | Offset              |                     | Semi Major Axis |             |                       | Distance                          |            |                      |                       |                        |                   |                           | Warning |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor |                           |         |
|  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   |                           |         |
| 5,200.0  | 5,097.2             | 5,166.2             | 5,002.0             | 19.5            | 23.5        | -69.17                | -1,126.7                          | -495.8     | 518.2                | 481.6                 | 36.57                  | 14.168            |                           |         |
| 5,300.0  | 5,194.9             | 5,265.6             | 5,097.6             | 19.9            | 24.0        | -69.18                | -1,151.3                          | -507.0     | 529.2                | 491.9                 | 37.36                  | 14.165            |                           |         |
| 5,400.0  | 5,292.5             | 5,365.0             | 5,193.3             | 20.3            | 24.5        | -69.19                | -1,175.9                          | -518.2     | 540.3                | 502.1                 | 38.15                  | 14.163            |                           |         |
| 5,500.0  | 5,390.2             | 5,464.4             | 5,288.9             | 20.7            | 25.0        | -69.20                | -1,200.5                          | -529.3     | 551.3                | 512.4                 | 38.93                  | 14.160            |                           |         |
| 5,600.0  | 5,487.8             | 5,563.7             | 5,384.6             | 21.2            | 25.5        | -69.21                | -1,225.1                          | -540.5     | 562.3                | 522.6                 | 39.72                  | 14.158            |                           |         |
| 5,700.0  | 5,585.5             | 5,663.1             | 5,480.2             | 21.6            | 26.0        | -69.22                | -1,249.7                          | -551.7     | 573.4                | 532.9                 | 40.51                  | 14.155            |                           |         |
| 5,800.0  | 5,683.2             | 5,762.5             | 5,575.8             | 22.0            | 26.5        | -69.23                | -1,274.3                          | -562.8     | 584.4                | 543.1                 | 41.29                  | 14.153            |                           |         |
| 5,900.0  | 5,780.8             | 5,861.9             | 5,671.5             | 22.4            | 27.0        | -69.23                | -1,298.9                          | -574.0     | 595.4                | 553.4                 | 42.08                  | 14.150            |                           |         |
| 6,000.0  | 5,878.5             | 5,961.3             | 5,767.1             | 22.8            | 27.5        | -69.24                | -1,323.5                          | -585.2     | 606.5                | 563.6                 | 42.87                  | 14.148            |                           |         |
| 6,100.0  | 5,976.1             | 6,060.7             | 5,862.8             | 23.2            | 28.0        | -69.25                | -1,348.2                          | -596.3     | 617.5                | 573.9                 | 43.65                  | 14.146            |                           |         |
| 6,200.0  | 6,073.8             | 6,160.1             | 5,958.4             | 23.7            | 28.5        | -69.26                | -1,372.8                          | -607.5     | 628.5                | 584.1                 | 44.44                  | 14.144            |                           |         |
| 6,300.0  | 6,171.4             | 6,259.5             | 6,054.1             | 24.1            | 29.0        | -69.26                | -1,397.4                          | -618.7     | 639.6                | 594.3                 | 45.23                  | 14.142            |                           |         |
| 6,400.0  | 6,269.1             | 6,371.5             | 6,162.2             | 24.5            | 29.5        | -69.38                | -1,424.1                          | -630.8     | 649.9                | 603.9                 | 46.07                  | 14.109            |                           |         |
| 6,500.0  | 6,367.3             | 6,489.3             | 6,277.0             | 24.8            | 30.0        | -69.68                | -1,448.1                          | -641.7     | 658.5                | 611.6                 | 46.88                  | 14.048            |                           |         |
| 6,600.0  | 6,466.0             | 6,607.3             | 6,393.0             | 25.1            | 30.4        | -69.93                | -1,467.8                          | -650.6     | 665.5                | 618.0                 | 47.56                  | 13.994            |                           |         |
| 6,700.0  | 6,565.3             | 6,725.7             | 6,510.2             | 25.4            | 30.7        | -70.13                | -1,483.2                          | -657.6     | 671.0                | 622.9                 | 48.12                  | 13.944            |                           |         |
| 6,800.0  | 6,664.9             | 6,844.3             | 6,628.1             | 25.6            | 31.0        | -70.27                | -1,494.2                          | -662.6     | 674.9                | 626.3                 | 48.56                  | 13.898            |                           |         |
| 6,900.0  | 6,764.7             | 6,963.0             | 6,746.6             | 25.7            | 31.1        | -70.36                | -1,500.8                          | -665.6     | 677.2                | 628.3                 | 48.88                  | 13.854            |                           |         |
| 7,000.0  | 6,864.7             | 7,081.1             | 6,864.7             | 25.8            | 31.2        | -70.40                | -1,502.8                          | -666.5     | 677.8                | 628.8                 | 49.08                  | 13.811            |                           |         |
| 7,031.5  | 6,896.2             | 7,112.5             | 6,896.1             | 25.8            | 31.2        | -81.16                | -1,502.9                          | -666.6     | 677.8                | 628.7                 | 49.14                  | 13.794            |                           |         |
| 7,100.0  | 6,964.7             | 7,180.8             | 6,964.4             | 25.9            | 31.3        | -83.60                | -1,503.0                          | -666.7     | 677.8                | 628.6                 | 49.27                  | 13.758            |                           |         |
| 7,200.0  | 7,064.7             | 7,280.4             | 7,064.0             | 26.0            | 31.4        | -83.60                | -1,503.3                          | -667.3     | 677.8                | 628.4                 | 49.47                  | 13.702            |                           |         |
| 7,300.0  | 7,164.7             | 7,380.1             | 7,163.7             | 26.1            | 31.5        | -83.59                | -1,503.8                          | -668.3     | 677.9                | 628.2                 | 49.69                  | 13.642            |                           |         |
| 7,400.0  | 7,264.7             | 7,480.0             | 7,263.6             | 26.2            | 31.6        | -83.59                | -1,504.6                          | -669.5     | 677.9                | 627.9                 | 49.91                  | 13.581            |                           |         |
| 7,500.0  | 7,364.7             | 7,580.0             | 7,363.6             | 26.3            | 31.6        | -83.59                | -1,505.3                          | -670.7     | 677.9                | 627.7                 | 50.14                  | 13.520            |                           |         |
| 7,600.0  | 7,464.7             | 7,680.0             | 7,463.6             | 26.4            | 31.7        | -83.59                | -1,506.0                          | -672.0     | 677.9                | 627.5                 | 50.36                  | 13.460            |                           |         |
| 7,700.0  | 7,564.7             | 7,780.0             | 7,563.6             | 26.5            | 31.8        | -83.59                | -1,506.7                          | -673.2     | 677.9                | 627.3                 | 50.59                  | 13.399            |                           |         |
| 7,800.0  | 7,664.6             | 7,880.0             | 7,663.6             | 26.6            | 31.9        | -83.59                | -1,507.4                          | -674.5     | 677.9                | 627.0                 | 50.82                  | 13.339            |                           |         |
| 7,900.0  | 7,764.6             | 7,980.0             | 7,763.5             | 26.7            | 32.0        | -83.59                | -1,508.2                          | -675.7     | 677.9                | 626.8                 | 51.05                  | 13.279            |                           |         |
| 8,000.0  | 7,864.6             | 8,080.0             | 7,863.5             | 26.8            | 32.1        | -83.59                | -1,508.9                          | -676.9     | 677.9                | 626.6                 | 51.28                  | 13.219            |                           |         |
| 8,100.0  | 7,964.6             | 8,180.0             | 7,963.5             | 27.0            | 32.2        | -83.59                | -1,509.6                          | -678.2     | 677.9                | 626.3                 | 51.51                  | 13.159            |                           |         |
| 8,200.0  | 8,064.6             | 8,280.0             | 8,063.5             | 27.1            | 32.3        | -83.59                | -1,510.3                          | -679.4     | 677.9                | 626.1                 | 51.75                  | 13.099            |                           |         |
| 8,300.0  | 8,164.6             | 8,380.0             | 8,163.5             | 27.2            | 32.4        | -83.59                | -1,511.0                          | -680.7     | 677.9                | 625.9                 | 51.98                  | 13.040            |                           |         |
| 8,400.0  | 8,264.6             | 8,480.0             | 8,263.5             | 27.3            | 32.5        | -83.60                | -1,511.7                          | -681.9     | 677.9                | 625.6                 | 52.22                  | 12.981            |                           |         |
| 8,500.0  | 8,364.6             | 8,580.0             | 8,363.5             | 27.4            | 32.6        | -83.60                | -1,512.5                          | -683.2     | 677.9                | 625.4                 | 52.46                  | 12.922            |                           |         |
| 8,600.0  | 8,464.6             | 8,680.0             | 8,463.5             | 27.5            | 32.7        | -83.60                | -1,513.2                          | -684.4     | 677.9                | 625.2                 | 52.70                  | 12.863            |                           |         |
| 8,700.0  | 8,564.6             | 8,780.0             | 8,563.5             | 27.6            | 32.8        | -83.60                | -1,513.9                          | -685.6     | 677.9                | 624.9                 | 52.94                  | 12.805            |                           |         |
| 8,800.0  | 8,664.5             | 8,880.0             | 8,663.4             | 27.8            | 32.9        | -83.60                | -1,514.6                          | -686.9     | 677.9                | 624.7                 | 53.18                  | 12.746            |                           |         |
| 8,900.0  | 8,764.5             | 8,980.0             | 8,763.4             | 27.9            | 33.0        | -83.60                | -1,515.3                          | -688.1     | 677.9                | 624.4                 | 53.42                  | 12.688            |                           |         |
| 9,000.0  | 8,864.5             | 9,080.0             | 8,863.4             | 28.0            | 33.1        | -83.60                | -1,516.1                          | -689.4     | 677.9                | 624.2                 | 53.67                  | 12.631            |                           |         |
| 9,100.0  | 8,964.5             | 9,180.0             | 8,963.4             | 28.1            | 33.2        | -83.60                | -1,516.8                          | -690.6     | 677.9                | 624.0                 | 53.91                  | 12.573            |                           |         |
| 9,200.0  | 9,064.5             | 9,280.0             | 9,063.4             | 28.2            | 33.3        | -83.60                | -1,517.5                          | -691.8     | 677.9                | 623.7                 | 54.16                  | 12.516            |                           |         |
| 9,300.0  | 9,164.5             | 9,380.0             | 9,163.4             | 28.3            | 33.4        | -83.60                | -1,518.2                          | -693.1     | 677.9                | 623.5                 | 54.41                  | 12.459            |                           |         |
| 9,400.0  | 9,264.5             | 9,480.0             | 9,263.4             | 28.5            | 33.5        | -83.60                | -1,518.9                          | -694.3     | 677.9                | 623.2                 | 54.66                  | 12.402            |                           |         |
| 9,500.0  | 9,364.5             | 9,580.0             | 9,363.4             | 28.6            | 33.6        | -83.60                | -1,519.7                          | -695.6     | 677.9                | 623.0                 | 54.91                  | 12.345            |                           |         |
| 9,600.0  | 9,464.5             | 9,680.0             | 9,463.4             | 28.7            | 33.7        | -83.60                | -1,520.4                          | -696.8     | 677.9                | 622.7                 | 55.16                  | 12.289            |                           |         |
| 9,700.0  | 9,564.4             | 9,780.0             | 9,563.4             | 28.8            | 33.8        | -83.60                | -1,521.1                          | -698.1     | 677.9                | 622.5                 | 55.41                  | 12.233            |                           |         |
| 9,800.0  | 9,664.4             | 9,880.0             | 9,663.3             | 29.0            | 33.9        | -83.60                | -1,521.8                          | -699.3     | 677.9                | 622.2                 | 55.67                  | 12.177            |                           |         |
| 9,900.0  | 9,764.4             | 9,980.0             | 9,763.3             | 29.1            | 34.0        | -83.60                | -1,522.5                          | -700.5     | 677.9                | 622.0                 | 55.92                  | 12.122            |                           |         |
| 9,927.4  | 9,791.8             | 10,007.4            | 9,790.7             | 29.1            | 34.1        | -83.60                | -1,522.7                          | -700.9     | 677.9                | 621.9                 | 55.99                  | 12.107            |                           |         |
| 9,951.6  | 9,816.0             | 10,027.7            | 9,811.0             | 29.1            | 34.1        | -83.60                | -1,522.9                          | -701.1     | 677.9                | 621.8                 | 56.05                  | 12.095            |                           |         |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08B B21 696 - DD - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   |         | Offset Site Error: | 0.0 ft |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---------|--------------------|--------|
| Survey Program: O-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   |         | Offset Well Error: | 0.0 ft |
| Reference  |                     | Offset              |                     | Semi Major Axis |             | Distance              |                                   |            |                      |                       |                        |                   |         |                    |        |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor | Warning |                    |        |
| 0.0  | 0.0                 | 0.0                 | 0.0                 | 0.0             | 0.0         | 29.22                 | 26.2                              | 14.7       | 30.1                 |                       |                        |                   |         |                    |        |
| 100.0  | 100.0               | 100.0               | 100.0               | 0.1             | 0.1         | 29.22                 | 26.2                              | 14.7       | 30.1                 | 29.8                  | 0.30                   | 101.279           |         |                    |        |
| 200.0  | 200.0               | 200.0               | 200.0               | 0.3             | 0.3         | 29.22                 | 26.2                              | 14.7       | 30.1                 | 29.4                  | 0.65                   | 46.534            |         |                    |        |
| 300.0  | 300.0               | 300.0               | 300.0               | 0.5             | 0.5         | 29.22                 | 26.2                              | 14.7       | 30.1                 | 29.1                  | 0.99                   | 30.206            |         |                    |        |
| 400.0  | 400.0               | 400.0               | 400.0               | 0.7             | 0.7         | 29.22                 | 26.2                              | 14.7       | 30.1                 | 28.7                  | 1.34                   | 22.360 CC, ES     |         |                    |        |
| 500.0  | 500.0               | 500.0               | 500.0               | 0.8             | 0.8         | 163.39                | 26.2                              | 14.7       | 31.7                 | 30.0                  | 1.69                   | 18.740            |         |                    |        |
| 600.0  | 599.8               | 599.8               | 599.8               | 1.0             | 1.0         | 165.70                | 26.2                              | 14.7       | 36.8                 | 34.7                  | 2.04                   | 18.021 SF         |         |                    |        |
| 700.0  | 699.5               | 700.3               | 700.3               | 1.3             | 1.2         | 170.27                | 24.6                              | 15.2       | 44.3                 | 41.9                  | 2.39                   | 18.542            |         |                    |        |
| 800.0  | 798.7               | 800.6               | 800.4               | 1.5             | 1.4         | 177.15                | 19.6                              | 17.0       | 53.8                 | 51.0                  | 2.74                   | 19.635            |         |                    |        |
| 900.0  | 897.5               | 900.3               | 899.8               | 1.8             | 1.6         | -175.36               | 11.4                              | 19.8       | 66.0                 | 62.9                  | 3.11                   | 21.244            |         |                    |        |
| 1,000.0  | 995.6               | 999.4               | 998.1               | 2.1             | 1.8         | -168.29               | 0.0                               | 23.8       | 81.6                 | 78.0                  | 3.52                   | 23.174            |         |                    |        |
| 1,100.0  | 1,093.3             | 1,097.8             | 1,095.3             | 2.5             | 2.1         | -162.00               | -14.5                             | 28.8       | 99.8                 | 95.8                  | 4.02                   | 24.836            |         |                    |        |
| 1,200.0  | 1,191.0             | 1,195.5             | 1,191.5             | 2.9             | 2.4         | -156.73               | -30.8                             | 34.4       | 118.8                | 114.2                 | 4.57                   | 26.006            |         |                    |        |
| 1,300.0  | 1,288.6             | 1,293.2             | 1,287.6             | 3.3             | 2.7         | -152.92               | -47.2                             | 40.0       | 138.5                | 133.4                 | 5.15                   | 26.901            |         |                    |        |
| 1,400.0  | 1,386.3             | 1,390.8             | 1,383.7             | 3.7             | 3.0         | -150.06               | -63.5                             | 45.7       | 158.7                | 152.9                 | 5.75                   | 27.599            |         |                    |        |
| 1,500.0  | 1,483.9             | 1,488.5             | 1,479.9             | 4.1             | 3.3         | -147.85               | -79.8                             | 51.3       | 179.1                | 172.8                 | 6.36                   | 28.155            |         |                    |        |
| 1,600.0  | 1,581.6             | 1,586.2             | 1,576.0             | 4.5             | 3.7         | -146.09               | -96.1                             | 57.0       | 199.8                | 192.8                 | 6.98                   | 28.607            |         |                    |        |
| 1,700.0  | 1,679.2             | 1,683.9             | 1,672.2             | 4.9             | 4.0         | -144.67               | -112.4                            | 62.6       | 220.6                | 213.0                 | 7.61                   | 28.980            |         |                    |        |
| 1,800.0  | 1,776.9             | 1,781.6             | 1,768.3             | 5.3             | 4.3         | -143.49               | -128.7                            | 68.2       | 241.5                | 233.3                 | 8.25                   | 29.293            |         |                    |        |
| 1,900.0  | 1,874.5             | 1,879.2             | 1,864.4             | 5.7             | 4.7         | -142.49               | -145.0                            | 73.9       | 262.5                | 253.7                 | 8.88                   | 29.560            |         |                    |        |
| 2,000.0  | 1,972.2             | 1,976.9             | 1,960.6             | 6.2             | 5.0         | -141.65               | -161.4                            | 79.5       | 283.6                | 274.1                 | 9.52                   | 29.789            |         |                    |        |
| 2,100.0  | 2,069.9             | 2,074.6             | 2,056.7             | 6.6             | 5.3         | -140.92               | -177.7                            | 85.1       | 304.7                | 294.6                 | 10.16                  | 29.988            |         |                    |        |
| 2,200.0  | 2,167.5             | 2,172.3             | 2,152.9             | 7.0             | 5.7         | -140.28               | -194.0                            | 90.8       | 325.9                | 315.1                 | 10.80                  | 30.163            |         |                    |        |
| 2,300.0  | 2,265.2             | 2,269.9             | 2,249.0             | 7.4             | 6.0         | -139.72               | -210.3                            | 96.4       | 347.1                | 335.6                 | 11.45                  | 30.317            |         |                    |        |
| 2,400.0  | 2,362.8             | 2,367.6             | 2,345.1             | 7.8             | 6.3         | -139.23               | -226.6                            | 102.1      | 368.3                | 356.2                 | 12.09                  | 30.455            |         |                    |        |
| 2,500.0  | 2,460.5             | 2,465.3             | 2,441.3             | 8.2             | 6.7         | -138.79               | -242.9                            | 107.7      | 389.5                | 376.8                 | 12.74                  | 30.578            |         |                    |        |
| 2,600.0  | 2,558.1             | 2,563.0             | 2,537.4             | 8.6             | 7.0         | -138.40               | -259.2                            | 113.3      | 410.8                | 397.4                 | 13.39                  | 30.689            |         |                    |        |
| 2,700.0  | 2,655.8             | 2,660.6             | 2,633.5             | 9.1             | 7.4         | -138.04               | -275.5                            | 119.0      | 432.1                | 418.0                 | 14.03                  | 30.789            |         |                    |        |
| 2,800.0  | 2,753.5             | 2,758.3             | 2,729.7             | 9.5             | 7.7         | -137.72               | -291.9                            | 124.6      | 453.4                | 438.7                 | 14.68                  | 30.881            |         |                    |        |
| 2,900.0  | 2,851.1             | 2,856.0             | 2,825.8             | 9.9             | 8.1         | -137.43               | -308.2                            | 130.3      | 474.7                | 459.3                 | 15.33                  | 30.964            |         |                    |        |
| 3,000.0  | 2,948.8             | 2,953.7             | 2,922.0             | 10.3            | 8.4         | -137.16               | -324.5                            | 135.9      | 496.0                | 480.0                 | 15.98                  | 31.041            |         |                    |        |
| 3,100.0  | 3,046.4             | 3,051.3             | 3,018.1             | 10.7            | 8.7         | -136.91               | -340.8                            | 141.5      | 517.3                | 500.7                 | 16.63                  | 31.112            |         |                    |        |
| 3,200.0  | 3,144.1             | 3,149.0             | 3,114.2             | 11.1            | 9.1         | -136.69               | -357.1                            | 147.2      | 538.7                | 521.4                 | 17.28                  | 31.177            |         |                    |        |
| 3,300.0  | 3,241.7             | 3,246.7             | 3,210.4             | 11.5            | 9.4         | -136.48               | -373.4                            | 152.8      | 560.0                | 542.1                 | 17.93                  | 31.237            |         |                    |        |
| 3,400.0  | 3,339.4             | 3,344.4             | 3,306.5             | 12.0            | 9.8         | -136.28               | -389.7                            | 158.4      | 581.3                | 562.8                 | 18.58                  | 31.293            |         |                    |        |
| 3,500.0  | 3,437.1             | 3,442.0             | 3,402.7             | 12.4            | 10.1        | -136.10               | -406.0                            | 164.1      | 602.7                | 583.5                 | 19.23                  | 31.345            |         |                    |        |
| 3,600.0  | 3,534.7             | 3,539.7             | 3,498.8             | 12.8            | 10.5        | -135.94               | -422.4                            | 169.7      | 624.1                | 604.2                 | 19.88                  | 31.394            |         |                    |        |
| 3,700.0  | 3,632.4             | 3,637.4             | 3,594.9             | 13.2            | 10.8        | -135.78               | -438.7                            | 175.4      | 645.4                | 624.9                 | 20.53                  | 31.439            |         |                    |        |
| 3,800.0  | 3,730.0             | 3,735.1             | 3,691.1             | 13.6            | 11.1        | -135.63               | -455.0                            | 181.0      | 666.8                | 645.6                 | 21.18                  | 31.482            |         |                    |        |
| 3,900.0  | 3,827.7             | 3,832.8             | 3,787.2             | 14.1            | 11.5        | -135.49               | -471.3                            | 186.6      | 688.2                | 666.3                 | 21.83                  | 31.522            |         |                    |        |
| 4,000.0  | 3,925.3             | 3,930.4             | 3,883.4             | 14.5            | 11.8        | -135.37               | -487.6                            | 192.3      | 709.5                | 687.1                 | 22.48                  | 31.560            |         |                    |        |
| 4,100.0  | 4,023.0             | 4,028.1             | 3,979.5             | 14.9            | 12.2        | -135.24               | -503.9                            | 197.9      | 730.9                | 707.8                 | 23.13                  | 31.596            |         |                    |        |
| 4,200.0  | 4,120.7             | 4,125.8             | 4,075.6             | 15.3            | 12.5        | -135.13               | -520.2                            | 203.6      | 752.3                | 728.5                 | 23.79                  | 31.629            |         |                    |        |
| 4,300.0  | 4,218.3             | 4,223.5             | 4,171.8             | 15.7            | 12.9        | -135.02               | -536.6                            | 209.2      | 773.7                | 749.3                 | 24.44                  | 31.661            |         |                    |        |
| 4,400.0  | 4,316.0             | 4,321.1             | 4,267.9             | 16.1            | 13.2        | -134.92               | -552.9                            | 214.8      | 795.1                | 770.0                 | 25.09                  | 31.691            |         |                    |        |
| 4,500.0  | 4,413.6             | 4,418.8             | 4,364.0             | 16.6            | 13.6        | -134.82               | -569.2                            | 220.5      | 816.5                | 790.7                 | 25.74                  | 31.720            |         |                    |        |
| 4,600.0  | 4,511.3             | 4,516.5             | 4,460.2             | 17.0            | 13.9        | -134.73               | -585.5                            | 226.1      | 837.9                | 811.5                 | 26.39                  | 31.747            |         |                    |        |
| 4,700.0  | 4,608.9             | 4,614.2             | 4,556.3             | 17.4            | 14.2        | -134.64               | -601.8                            | 231.8      | 859.3                | 832.2                 | 27.04                  | 31.773            |         |                    |        |
| 4,800.0  | 4,706.6             | 4,711.8             | 4,652.5             | 17.8            | 14.6        | -134.56               | -618.1                            | 237.4      | 880.7                | 853.0                 | 27.70                  | 31.798            |         |                    |        |
| 4,900.0  | 4,804.2             | 4,809.5             | 4,748.6             | 18.2            | 14.9        | -134.48               | -634.4                            | 243.0      | 902.1                | 873.7                 | 28.35                  | 31.821            |         |                    |        |
| 5,000.0  | 4,901.9             | 4,907.2             | 4,844.7             | 18.6            | 15.3        | -134.40               | -650.7                            | 248.7      | 923.5                | 894.5                 | 29.00                  | 31.843            |         |                    |        |
| 5,100.0  | 4,999.6             | 5,004.9             | 4,940.9             | 19.1            | 15.6        | -134.33               | -667.1                            | 254.3      | 944.9                | 915.2                 | 29.65                  | 31.865            |         |                    |        |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08B B21 696 - DD - Plan #1 |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Site Error: | 0.0 ft |
|--|---------------------------|---------------------------|---------------------------|-------------------|----------------|-----------------------------|---|---------------|----------------------------|-----------------------------|------------------------------|----------------------|--------------------|--------|
| Survey Program: O-MWD  |                           |                           |                           |                   |                |                             |   |               |                            |                             |                              |                      | Offset Well Error: | 0.0 ft |
| Reference  |                           | Offset                    |                           | Semi Major Axis   |                |                             | Distance                                |               |                            |                             | Total<br>Uncertainty<br>Axis | Separation<br>Factor | Warning            |        |
| Measured<br>Depth<br>(ft)  | Vertical<br>Depth<br>(ft) | Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Reference<br>(ft) | Offset<br>(ft) | Highside<br>Toolface<br>(°) | Offset Wellbore Centre<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Between<br>Centres<br>(ft) | Between<br>Ellipses<br>(ft) |                              |                      |                    |        |
| 5,200.0  | 5,097.2                   | 5,102.5                   | 5,037.0                   | 19.5              | 16.0           | -134.26                     | -683.4                                  | 259.9         | 966.3                      | 936.0                       | 30.30                        | 31.885               |                    |        |
| 5,300.0  | 5,194.9                   | 5,200.2                   | 5,133.2                   | 19.9              | 16.3           | -134.19                     | -699.7                                  | 265.6         | 987.7                      | 956.7                       | 30.96                        | 31.905               |                    |        |
| 5,400.0  | 5,292.5                   | 5,297.9                   | 5,229.3                   | 20.3              | 16.7           | -134.13                     | -716.0                                  | 271.2         | 1,009.1                    | 977.5                       | 31.61                        | 31.924               |                    |        |
| 5,500.0  | 5,390.2                   | 5,395.6                   | 5,325.4                   | 20.7              | 17.0           | -134.07                     | -732.3                                  | 276.9         | 1,030.5                    | 998.2                       | 32.26                        | 31.942               |                    |        |
| 5,600.0  | 5,487.8                   | 5,493.2                   | 5,421.6                   | 21.2              | 17.4           | -134.01                     | -748.6                                  | 282.5         | 1,051.9                    | 1,019.0                     | 32.91                        | 31.959               |                    |        |
| 5,700.0  | 5,585.5                   | 5,590.9                   | 5,517.7                   | 21.6              | 17.7           | -133.96                     | -764.9                                  | 288.1         | 1,073.3                    | 1,039.7                     | 33.57                        | 31.976               |                    |        |
| 5,800.0  | 5,683.2                   | 5,688.6                   | 5,613.9                   | 22.0              | 18.1           | -133.90                     | -781.3                                  | 293.8         | 1,094.7                    | 1,060.5                     | 34.22                        | 31.992               |                    |        |
| 5,900.0  | 5,780.8                   | 5,786.3                   | 5,710.0                   | 22.4              | 18.4           | -133.85                     | -797.6                                  | 299.4         | 1,116.1                    | 1,081.2                     | 34.87                        | 32.007               |                    |        |
| 6,000.0  | 5,878.5                   | 5,884.0                   | 5,806.1                   | 22.8              | 18.7           | -133.80                     | -813.9                                  | 305.1         | 1,137.5                    | 1,102.0                     | 35.52                        | 32.022               |                    |        |
| 6,100.0  | 5,976.1                   | 5,981.6                   | 5,902.3                   | 23.2              | 19.1           | -133.75                     | -830.2                                  | 310.7         | 1,158.9                    | 1,122.8                     | 36.18                        | 32.036               |                    |        |
| 6,200.0  | 6,073.8                   | 6,079.3                   | 5,998.4                   | 23.7              | 19.4           | -133.71                     | -846.5                                  | 316.3         | 1,180.4                    | 1,143.5                     | 36.83                        | 32.050               |                    |        |
| 6,300.0  | 6,171.4                   | 6,177.0                   | 6,094.6                   | 24.1              | 19.8           | -133.66                     | -862.8                                  | 322.0         | 1,201.8                    | 1,164.3                     | 37.48                        | 32.063               |                    |        |
| 6,400.0  | 6,269.1                   | 6,274.7                   | 6,190.7                   | 24.5              | 20.1           | -133.68                     | -879.1                                  | 327.6         | 1,223.1                    | 1,185.0                     | 38.14                        | 32.068               |                    |        |
| 6,500.0  | 6,367.3                   | 6,372.7                   | 6,287.1                   | 24.8              | 20.5           | -133.85                     | -895.5                                  | 333.3         | 1,242.9                    | 1,204.1                     | 38.80                        | 32.030               |                    |        |
| 6,600.0  | 6,466.0                   | 6,471.0                   | 6,383.9                   | 25.1              | 20.8           | -133.86                     | -911.9                                  | 338.9         | 1,260.3                    | 1,220.9                     | 39.44                        | 31.957               |                    |        |
| 6,700.0  | 6,565.3                   | 6,569.0                   | 6,500.5                   | 25.4              | 21.2           | -133.76                     | -929.4                                  | 345.0         | 1,274.6                    | 1,234.5                     | 40.04                        | 31.829               |                    |        |
| 6,800.0  | 6,664.9                   | 6,708.3                   | 6,619.0                   | 25.6              | 21.5           | -133.68                     | -942.4                                  | 349.5         | 1,285.0                    | 1,244.4                     | 40.54                        | 31.699               |                    |        |
| 6,900.0  | 6,764.7                   | 6,828.4                   | 6,738.8                   | 25.7              | 21.7           | -133.61                     | -950.8                                  | 352.4         | 1,291.4                    | 1,250.5                     | 40.91                        | 31.569               |                    |        |
| 7,000.0  | 6,864.7                   | 6,949.0                   | 6,859.3                   | 25.8              | 21.8           | -133.55                     | -954.5                                  | 353.7         | 1,293.9                    | 1,252.7                     | 41.17                        | 31.430               |                    |        |
| 7,100.0  | 6,964.7                   | 7,058.1                   | 6,968.4                   | 25.9              | 21.9           | -146.75                     | -954.7                                  | 353.6         | 1,294.0                    | 1,252.6                     | 41.39                        | 31.263               |                    |        |
| 7,200.0  | 7,064.7                   | 7,163.1                   | 7,073.3                   | 26.0              | 22.0           | -146.75                     | -955.0                                  | 353.1         | 1,294.1                    | 1,252.4                     | 41.62                        | 31.094               |                    |        |
| 7,300.0  | 7,164.7                   | 7,268.0                   | 7,178.3                   | 26.1              | 22.1           | -146.75                     | -955.6                                  | 352.2         | 1,294.1                    | 1,252.3                     | 41.85                        | 30.920               |                    |        |
| 7,400.0  | 7,264.7                   | 7,370.0                   | 7,280.2                   | 26.2              | 22.2           | -146.75                     | -956.3                                  | 350.9         | 1,294.1                    | 1,252.0                     | 42.09                        | 30.747               |                    |        |
| 7,500.0  | 7,364.7                   | 7,470.0                   | 7,380.2                   | 26.3              | 22.4           | -146.75                     | -957.0                                  | 349.7         | 1,294.1                    | 1,251.8                     | 42.33                        | 30.575               |                    |        |
| 7,600.0  | 7,464.7                   | 7,570.0                   | 7,480.2                   | 26.4              | 22.5           | -146.75                     | -957.7                                  | 348.4         | 1,294.1                    | 1,251.6                     | 42.56                        | 30.405               |                    |        |
| 7,700.0  | 7,564.7                   | 7,670.0                   | 7,580.2                   | 26.5              | 22.6           | -146.75                     | -958.4                                  | 347.2         | 1,294.1                    | 1,251.3                     | 42.80                        | 30.235               |                    |        |
| 7,800.0  | 7,664.6                   | 7,770.0                   | 7,680.2                   | 26.6              | 22.7           | -146.75                     | -959.2                                  | 346.0         | 1,294.1                    | 1,251.1                     | 43.04                        | 30.066               |                    |        |
| 7,900.0  | 7,764.6                   | 7,870.0                   | 7,780.2                   | 26.7              | 22.8           | -146.75                     | -959.9                                  | 344.7         | 1,294.1                    | 1,250.9                     | 43.28                        | 29.898               |                    |        |
| 8,000.0  | 7,864.6                   | 7,970.0                   | 7,880.2                   | 26.8              | 22.9           | -146.75                     | -960.6                                  | 343.5         | 1,294.1                    | 1,250.6                     | 43.53                        | 29.731               |                    |        |
| 8,100.0  | 7,964.6                   | 8,070.0                   | 7,980.1                   | 27.0              | 23.0           | -146.75                     | -961.3                                  | 342.2         | 1,294.1                    | 1,250.4                     | 43.77                        | 29.565               |                    |        |
| 8,200.0  | 8,064.6                   | 8,170.0                   | 8,080.1                   | 27.1              | 23.1           | -146.75                     | -962.0                                  | 341.0         | 1,294.1                    | 1,250.1                     | 44.02                        | 29.399               |                    |        |
| 8,300.0  | 8,164.6                   | 8,270.0                   | 8,180.1                   | 27.2              | 23.2           | -146.75                     | -962.8                                  | 339.7         | 1,294.2                    | 1,249.9                     | 44.27                        | 29.235               |                    |        |
| 8,400.0  | 8,264.6                   | 8,370.0                   | 8,280.1                   | 27.3              | 23.3           | -146.75                     | -963.5                                  | 338.5         | 1,294.2                    | 1,249.6                     | 44.52                        | 29.071               |                    |        |
| 8,500.0  | 8,364.6                   | 8,470.0                   | 8,380.1                   | 27.4              | 23.4           | -146.75                     | -964.2                                  | 337.3         | 1,294.2                    | 1,249.4                     | 44.77                        | 28.909               |                    |        |
| 8,600.0  | 8,464.6                   | 8,570.0                   | 8,480.1                   | 27.5              | 23.6           | -146.75                     | -964.9                                  | 336.0         | 1,294.2                    | 1,249.1                     | 45.02                        | 28.747               |                    |        |
| 8,700.0  | 8,564.6                   | 8,670.0                   | 8,580.1                   | 27.6              | 23.7           | -146.75                     | -965.6                                  | 334.8         | 1,294.2                    | 1,248.9                     | 45.27                        | 28.586               |                    |        |
| 8,800.0  | 8,664.5                   | 8,770.0                   | 8,680.1                   | 27.8              | 23.8           | -146.75                     | -966.4                                  | 333.5         | 1,294.2                    | 1,248.6                     | 45.53                        | 28.427               |                    |        |
| 8,900.0  | 8,764.5                   | 8,870.0                   | 8,780.1                   | 27.9              | 23.9           | -146.75                     | -967.1                                  | 332.3         | 1,294.2                    | 1,248.4                     | 45.78                        | 28.268               |                    |        |
| 9,000.0  | 8,864.5                   | 8,970.0                   | 8,880.1                   | 28.0              | 24.0           | -146.75                     | -967.8                                  | 331.0         | 1,294.2                    | 1,248.1                     | 46.04                        | 28.110               |                    |        |
| 9,100.0  | 8,964.5                   | 9,070.0                   | 8,980.0                   | 28.1              | 24.1           | -146.75                     | -968.5                                  | 329.8         | 1,294.2                    | 1,247.9                     | 46.30                        | 27.954               |                    |        |
| 9,200.0  | 9,064.5                   | 9,170.0                   | 9,080.0                   | 28.2              | 24.3           | -146.75                     | -969.2                                  | 328.6         | 1,294.2                    | 1,247.6                     | 46.56                        | 27.798               |                    |        |
| 9,300.0  | 9,164.5                   | 9,270.0                   | 9,180.0                   | 28.3              | 24.4           | -146.75                     | -969.9                                  | 327.3         | 1,294.2                    | 1,247.4                     | 46.82                        | 27.643               |                    |        |
| 9,400.0  | 9,264.5                   | 9,370.0                   | 9,280.0                   | 28.5              | 24.5           | -146.75                     | -970.7                                  | 326.1         | 1,294.2                    | 1,247.1                     | 47.08                        | 27.490               |                    |        |
| 9,500.0  | 9,364.5                   | 9,470.0                   | 9,380.0                   | 28.6              | 24.6           | -146.75                     | -971.4                                  | 324.8         | 1,294.2                    | 1,246.8                     | 47.34                        | 27.337               |                    |        |
| 9,600.0  | 9,464.5                   | 9,570.0                   | 9,480.0                   | 28.7              | 24.7           | -146.75                     | -972.1                                  | 323.6         | 1,294.2                    | 1,246.6                     | 47.61                        | 27.186               |                    |        |
| 9,700.0  | 9,564.4                   | 9,670.0                   | 9,580.0                   | 28.8              | 24.9           | -146.75                     | -972.8                                  | 322.3         | 1,294.2                    | 1,246.3                     | 47.87                        | 27.035               |                    |        |
| 9,800.0  | 9,664.4                   | 9,770.0                   | 9,680.0                   | 29.0              | 25.0           | -146.75                     | -973.5                                  | 321.1         | 1,294.2                    | 1,246.0                     | 48.14                        | 26.886               |                    |        |
| 9,900.0  | 9,764.4                   | 9,870.0                   | 9,780.0                   | 29.1              | 25.1           | -146.75                     | -974.3                                  | 319.9         | 1,294.2                    | 1,245.8                     | 48.40                        | 26.737               |                    |        |
| 9,951.6  | 9,816.0                   | 9,921.6                   | 9,831.5                   | 29.1              | 25.2           | -146.75                     | -974.6                                  | 319.2         | 1,294.2                    | 1,245.6                     | 48.54                        | 26.661               |                    |        |

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



# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08C B21 696 - DD - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                  |               | Offset Site Error: | 0.0 ft |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------|---------------|--------------------|--------|
| Survey Program: O-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                  |               | Offset Well Error: | 0.0 ft |
| Reference  |                     | Offset              |                     | Semi Major Axis |             | Distance              |                                   | Total      |                      | Separation            |                  | Warning       |                    |        |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Uncertainty Axis | Factor        |                    |        |
| 0.0  | 0.0                 | 0.0                 | 0.0                 | 0.0             | 0.0         | 29.46                 | 35.0                              | 19.7       | 40.2                 |                       |                  |               |                    |        |
| 100.0  | 100.0               | 100.0               | 100.0               | 0.1             | 0.1         | 29.46                 | 35.0                              | 19.7       | 40.2                 | 39.9                  | 0.30             | 135.349       |                    |        |
| 200.0  | 200.0               | 200.0               | 200.0               | 0.3             | 0.3         | 29.46                 | 35.0                              | 19.7       | 40.2                 | 39.5                  | 0.65             | 62.187        |                    |        |
| 300.0  | 300.0               | 300.0               | 300.0               | 0.5             | 0.5         | 29.46                 | 35.0                              | 19.7       | 40.2                 | 39.2                  | 0.99             | 40.367        |                    |        |
| 400.0  | 400.0               | 400.9               | 400.9               | 0.7             | 0.7         | 31.43                 | 33.3                              | 20.3       | 39.0                 | 37.7                  | 1.35             | 29.009        |                    |        |
| 500.0  | 500.0               | 501.5               | 501.4               | 0.8             | 0.9         | 171.68                | 28.3                              | 22.1       | 37.7                 | 36.0                  | 1.71             | 22.041        |                    |        |
| 509.1  | 509.1               | 510.7               | 510.5               | 0.9             | 0.9         | 172.61                | 27.7                              | 22.4       | 37.7                 | 35.9                  | 1.74             | 21.591 CC, ES |                    |        |
| 600.0  | 599.8               | 601.8               | 601.2               | 1.0             | 1.1         | -176.16               | 20.0                              | 25.1       | 39.1                 | 37.0                  | 2.10             | 18.621        |                    |        |
| 700.0  | 699.5               | 701.4               | 700.1               | 1.3             | 1.3         | -162.09               | 8.5                               | 29.2       | 45.0                 | 42.5                  | 2.54             | 17.741 SF     |                    |        |
| 800.0  | 798.7               | 800.1               | 797.6               | 1.5             | 1.6         | -149.88               | -6.0                              | 34.5       | 56.3                 | 53.3                  | 3.03             | 18.575        |                    |        |
| 900.0  | 897.5               | 897.9               | 893.5               | 1.8             | 2.0         | -140.96               | -23.5                             | 40.8       | 72.9                 | 69.3                  | 3.59             | 20.281        |                    |        |
| 1,000.0  | 995.6               | 994.7               | 988.0               | 2.1             | 2.4         | -134.92               | -43.7                             | 48.0       | 94.0                 | 89.7                  | 4.21             | 22.318        |                    |        |
| 1,100.0  | 1,093.3             | 1,091.8             | 1,082.5             | 2.5             | 2.8         | -131.80               | -64.6                             | 55.5       | 117.5                | 112.6                 | 4.86             | 24.150        |                    |        |
| 1,200.0  | 1,191.0             | 1,188.8             | 1,177.0             | 2.9             | 3.2         | -129.79               | -85.4                             | 63.0       | 141.2                | 135.7                 | 5.54             | 25.508        |                    |        |
| 1,300.0  | 1,288.6             | 1,285.9             | 1,271.4             | 3.3             | 3.6         | -128.36               | -106.3                            | 70.5       | 165.1                | 158.9                 | 6.22             | 26.542        |                    |        |
| 1,400.0  | 1,386.3             | 1,382.9             | 1,365.9             | 3.7             | 4.0         | -127.29               | -127.1                            | 78.0       | 189.1                | 182.2                 | 6.91             | 27.350        |                    |        |
| 1,500.0  | 1,483.9             | 1,479.9             | 1,460.4             | 4.1             | 4.4         | -126.46               | -148.0                            | 85.5       | 213.1                | 205.5                 | 7.61             | 27.996        |                    |        |
| 1,600.0  | 1,581.6             | 1,577.0             | 1,554.8             | 4.5             | 4.8         | -125.80               | -168.8                            | 93.0       | 237.2                | 228.8                 | 8.31             | 28.524        |                    |        |
| 1,700.0  | 1,679.2             | 1,674.0             | 1,649.3             | 4.9             | 5.2         | -125.26               | -189.7                            | 100.5      | 261.2                | 252.2                 | 9.02             | 28.961        |                    |        |
| 1,800.0  | 1,776.9             | 1,771.0             | 1,743.8             | 5.3             | 5.7         | -124.81               | -210.5                            | 108.0      | 285.3                | 275.6                 | 9.73             | 29.329        |                    |        |
| 1,900.0  | 1,874.5             | 1,868.1             | 1,838.2             | 5.7             | 6.1         | -124.43               | -231.4                            | 115.5      | 309.4                | 299.0                 | 10.44            | 29.643        |                    |        |
| 2,000.0  | 1,972.2             | 1,965.1             | 1,932.7             | 6.2             | 6.5         | -124.11               | -252.2                            | 123.0      | 333.5                | 322.4                 | 11.15            | 29.913        |                    |        |
| 2,100.0  | 2,069.9             | 2,062.1             | 2,027.2             | 6.6             | 6.9         | -123.83               | -273.1                            | 130.4      | 357.7                | 345.8                 | 11.86            | 30.149        |                    |        |
| 2,200.0  | 2,167.5             | 2,159.2             | 2,121.7             | 7.0             | 7.3         | -123.59               | -293.9                            | 137.9      | 381.8                | 369.2                 | 12.58            | 30.355        |                    |        |
| 2,300.0  | 2,265.2             | 2,256.2             | 2,216.1             | 7.4             | 7.8         | -123.37               | -314.8                            | 145.4      | 405.9                | 392.6                 | 13.29            | 30.538        |                    |        |
| 2,400.0  | 2,362.8             | 2,353.2             | 2,310.6             | 7.8             | 8.2         | -123.18               | -335.6                            | 152.9      | 430.1                | 416.0                 | 14.01            | 30.701        |                    |        |
| 2,500.0  | 2,460.5             | 2,450.3             | 2,405.1             | 8.2             | 8.6         | -123.01               | -356.5                            | 160.4      | 454.2                | 439.5                 | 14.72            | 30.847        |                    |        |
| 2,600.0  | 2,558.1             | 2,547.3             | 2,499.5             | 8.6             | 9.0         | -122.85               | -377.3                            | 167.9      | 478.3                | 462.9                 | 15.44            | 30.979        |                    |        |
| 2,700.0  | 2,655.8             | 2,644.3             | 2,594.0             | 9.1             | 9.4         | -122.72               | -398.2                            | 175.4      | 502.5                | 486.3                 | 16.16            | 31.098        |                    |        |
| 2,800.0  | 2,753.5             | 2,741.4             | 2,688.5             | 9.5             | 9.9         | -122.59               | -419.0                            | 182.9      | 526.6                | 509.8                 | 16.88            | 31.206        |                    |        |
| 2,900.0  | 2,851.1             | 2,838.4             | 2,782.9             | 9.9             | 10.3        | -122.47               | -439.9                            | 190.4      | 550.8                | 533.2                 | 17.59            | 31.305        |                    |        |
| 3,000.0  | 2,948.8             | 2,935.4             | 2,877.4             | 10.3            | 10.7        | -122.37               | -460.7                            | 197.9      | 575.0                | 556.6                 | 18.31            | 31.396        |                    |        |
| 3,100.0  | 3,046.4             | 3,032.5             | 2,971.9             | 10.7            | 11.1        | -122.27               | -481.6                            | 205.4      | 599.1                | 580.1                 | 19.03            | 31.479        |                    |        |
| 3,200.0  | 3,144.1             | 3,129.5             | 3,066.4             | 11.1            | 11.5        | -122.18               | -502.4                            | 212.9      | 623.3                | 603.5                 | 19.75            | 31.556        |                    |        |
| 3,300.0  | 3,241.7             | 3,226.5             | 3,160.8             | 11.5            | 12.0        | -122.10               | -523.3                            | 220.3      | 647.4                | 627.0                 | 20.47            | 31.627        |                    |        |
| 3,400.0  | 3,339.4             | 3,323.6             | 3,255.3             | 12.0            | 12.4        | -122.02               | -544.1                            | 227.8      | 671.6                | 650.4                 | 21.19            | 31.694        |                    |        |
| 3,500.0  | 3,437.1             | 3,420.6             | 3,349.8             | 12.4            | 12.8        | -121.95               | -565.0                            | 235.3      | 695.8                | 673.9                 | 21.91            | 31.755        |                    |        |
| 3,600.0  | 3,534.7             | 3,517.6             | 3,444.2             | 12.8            | 13.2        | -121.88               | -585.8                            | 242.8      | 719.9                | 697.3                 | 22.63            | 31.813        |                    |        |
| 3,700.0  | 3,632.4             | 3,614.7             | 3,538.7             | 13.2            | 13.7        | -121.82               | -606.7                            | 250.3      | 744.1                | 720.7                 | 23.35            | 31.867        |                    |        |
| 3,800.0  | 3,730.0             | 3,711.7             | 3,633.2             | 13.6            | 14.1        | -121.76               | -627.6                            | 257.8      | 768.3                | 744.2                 | 24.07            | 31.917        |                    |        |
| 3,900.0  | 3,827.7             | 3,808.7             | 3,727.6             | 14.1            | 14.5        | -121.71               | -648.4                            | 265.3      | 792.4                | 767.6                 | 24.79            | 31.965        |                    |        |
| 4,000.0  | 3,925.3             | 3,905.8             | 3,822.1             | 14.5            | 14.9        | -121.66               | -669.3                            | 272.8      | 816.6                | 791.1                 | 25.51            | 32.009        |                    |        |
| 4,100.0  | 4,023.0             | 4,002.8             | 3,916.6             | 14.9            | 15.3        | -121.61               | -690.1                            | 280.3      | 840.8                | 814.5                 | 26.23            | 32.051        |                    |        |
| 4,200.0  | 4,120.7             | 4,099.8             | 4,011.1             | 15.3            | 15.8        | -121.56               | -711.0                            | 287.8      | 864.9                | 838.0                 | 26.95            | 32.091        |                    |        |
| 4,300.0  | 4,218.3             | 4,196.9             | 4,105.5             | 15.7            | 16.2        | -121.52               | -731.8                            | 295.3      | 889.1                | 861.4                 | 27.67            | 32.129        |                    |        |
| 4,400.0  | 4,316.0             | 4,293.9             | 4,200.0             | 16.1            | 16.6        | -121.48               | -752.7                            | 302.8      | 913.3                | 884.9                 | 28.39            | 32.164        |                    |        |
| 4,500.0  | 4,413.6             | 4,390.9             | 4,294.5             | 16.6            | 17.0        | -121.44               | -773.5                            | 310.3      | 937.4                | 908.3                 | 29.11            | 32.198        |                    |        |
| 4,600.0  | 4,511.3             | 4,488.0             | 4,388.9             | 17.0            | 17.5        | -121.40               | -794.4                            | 317.7      | 961.6                | 931.8                 | 29.84            | 32.230        |                    |        |
| 4,700.0  | 4,608.9             | 4,585.0             | 4,483.4             | 17.4            | 17.9        | -121.37               | -815.2                            | 325.2      | 985.8                | 955.2                 | 30.56            | 32.261        |                    |        |
| 4,800.0  | 4,706.6             | 4,682.0             | 4,577.9             | 17.8            | 18.3        | -121.33               | -836.1                            | 332.7      | 1,009.9              | 978.7                 | 31.28            | 32.290        |                    |        |
| 4,900.0  | 4,804.2             | 4,779.1             | 4,672.3             | 18.2            | 18.7        | -121.30               | -856.9                            | 340.2      | 1,034.1              | 1,002.1               | 32.00            | 32.317        |                    |        |
| 5,000.0  | 4,901.9             | 4,876.1             | 4,766.8             | 18.6            | 19.1        | -121.27               | -877.8                            | 347.7      | 1,058.3              | 1,025.6               | 32.72            | 32.344        |                    |        |

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



# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08C B21 696 - DD - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   | Offset Site Error: | 0.0 ft |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|--------------------|--------|
| Survey Program: 0-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   | Offset Well Error: | 0.0 ft |
| Reference  |                     | Offset              |                     | Semi Major Axis |             |                       | Distance                          |            |                      |                       |                        |                   | Warning            |        |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor |                    |        |
| 5,100.0  | 4,999.6             | 4,973.1             | 4,861.3             | 19.1            | 19.6        | -121.24               | -898.6                            | 355.2      | 1,082.5              | 1,049.0               | 33.44                  | 32.369            |                    |        |
| 5,200.0  | 5,097.2             | 5,070.2             | 4,955.8             | 19.5            | 20.0        | -121.21               | -919.5                            | 362.7      | 1,106.6              | 1,072.5               | 34.16                  | 32.393            |                    |        |
| 5,300.0  | 5,194.9             | 5,167.2             | 5,050.2             | 19.9            | 20.4        | -121.19               | -940.3                            | 370.2      | 1,130.8              | 1,095.9               | 34.88                  | 32.416            |                    |        |
| 5,400.0  | 5,292.5             | 5,264.2             | 5,144.7             | 20.3            | 20.8        | -121.16               | -961.2                            | 377.7      | 1,155.0              | 1,119.4               | 35.61                  | 32.438            |                    |        |
| 5,500.0  | 5,390.2             | 5,361.3             | 5,239.2             | 20.7            | 21.3        | -121.14               | -982.0                            | 385.2      | 1,179.1              | 1,142.8               | 36.33                  | 32.460            |                    |        |
| 5,600.0  | 5,487.8             | 5,458.3             | 5,333.6             | 21.2            | 21.7        | -121.11               | -1,002.9                          | 392.7      | 1,203.3              | 1,166.3               | 37.05                  | 32.480            |                    |        |
| 5,700.0  | 5,585.5             | 5,555.3             | 5,428.1             | 21.6            | 22.1        | -121.09               | -1,023.7                          | 400.2      | 1,227.5              | 1,189.7               | 37.77                  | 32.499            |                    |        |
| 5,800.0  | 5,683.2             | 5,652.4             | 5,522.6             | 22.0            | 22.5        | -121.07               | -1,044.6                          | 407.7      | 1,251.7              | 1,213.2               | 38.49                  | 32.518            |                    |        |
| 5,900.0  | 5,780.8             | 5,749.4             | 5,617.0             | 22.4            | 23.0        | -121.05               | -1,065.4                          | 415.1      | 1,275.8              | 1,236.6               | 39.21                  | 32.536            |                    |        |
| 6,000.0  | 5,878.5             | 5,846.4             | 5,711.5             | 22.8            | 23.4        | -121.03               | -1,086.3                          | 422.6      | 1,300.0              | 1,260.1               | 39.93                  | 32.554            |                    |        |
| 6,100.0  | 5,976.1             | 5,943.5             | 5,806.0             | 23.2            | 23.8        | -121.01               | -1,107.1                          | 430.1      | 1,324.2              | 1,283.5               | 40.66                  | 32.571            |                    |        |
| 6,200.0  | 6,073.8             | 6,040.5             | 5,900.5             | 23.7            | 24.2        | -120.99               | -1,128.0                          | 437.6      | 1,348.4              | 1,307.0               | 41.38                  | 32.587            |                    |        |
| 6,300.0  | 6,171.4             | 6,137.5             | 5,994.9             | 24.1            | 24.6        | -120.97               | -1,148.8                          | 445.1      | 1,372.5              | 1,330.4               | 42.10                  | 32.602            |                    |        |
| 6,400.0  | 6,269.1             | 6,234.6             | 6,089.4             | 24.5            | 25.1        | -121.04               | -1,169.7                          | 452.6      | 1,396.7              | 1,353.8               | 42.84                  | 32.604            |                    |        |

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design NENE S21-T6S-R96W (B21 696 Pad) - OM08D B21 696 - DD - Plan #1 |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   | Offset Site Error: 0.0 ft |         |
|--|---------------------|---------------------|---------------------|-----------------|-------------|-----------------------|-----------------------------------|------------|----------------------|-----------------------|------------------------|-------------------|---------------------------|---------|
| Survey Program: O-MWD  |                     |                     |                     |                 |             |                       |                                   |            |                      |                       |                        |                   | Offset Well Error: 0.0 ft |         |
| Reference  |                     | Offset              |                     | Semi Major Axis |             | Distance              |                                   |            |                      |                       |                        |                   |                           | Warning |
| Measured Depth (ft)  | Vertical Depth (ft) | Measured Depth (ft) | Vertical Depth (ft) | Reference (ft)  | Offset (ft) | Highside Toolface (°) | Offset Wellbore Centre +N/-S (ft) | +E/-W (ft) | Between Centres (ft) | Between Ellipses (ft) | Total Uncertainty Axis | Separation Factor |                           |         |
| 0.0  | 0.0                 | 0.0                 | 0.0                 | 0.0             | 0.0         | 29.63                 | 52.1                              | 29.6       | 59.9                 |                       |                        |                   |                           |         |
| 100.0  | 100.0               | 100.0               | 100.0               | 0.1             | 0.1         | 29.63                 | 52.1                              | 29.6       | 59.9                 | 59.6                  | 0.30                   | 201.943           |                           |         |
| 200.0  | 200.0               | 200.0               | 200.0               | 0.3             | 0.3         | 29.63                 | 52.1                              | 29.6       | 59.9                 | 59.3                  | 0.65                   | 92.784            |                           |         |
| 300.0  | 300.0               | 301.2               | 301.2               | 0.5             | 0.5         | 31.02                 | 50.4                              | 30.3       | 58.9                 | 57.9                  | 1.00                   | 59.039            |                           |         |
| 400.0  | 400.0               | 402.2               | 402.1               | 0.7             | 0.7         | 35.47                 | 45.5                              | 32.4       | 55.9                 | 54.6                  | 1.35                   | 41.468            |                           |         |
| 500.0  | 500.0               | 502.7               | 502.2               | 0.8             | 0.9         | 177.18                | 37.4                              | 35.9       | 53.6                 | 51.9                  | 1.76                   | 30.415            |                           |         |
| 515.2  | 515.2               | 518.0               | 517.3               | 0.9             | 1.0         | 178.83                | 35.9                              | 36.6       | 53.6                 | 51.8                  | 1.83                   | 29.281            | CC, ES                    |         |
| 600.0  | 599.8               | 602.6               | 601.3               | 1.0             | 1.2         | -170.75               | 26.1                              | 40.8       | 55.3                 | 53.1                  | 2.21                   | 25.034            |                           |         |
| 700.0  | 699.5               | 701.6               | 699.1               | 1.3             | 1.5         | -157.81               | 11.8                              | 46.9       | 62.6                 | 59.9                  | 2.70                   | 23.131            | SF                        |         |
| 800.0  | 798.7               | 799.5               | 795.1               | 1.5             | 1.9         | -146.75               | -5.3                              | 54.3       | 75.9                 | 72.7                  | 3.24                   | 23.424            |                           |         |
| 900.0  | 897.5               | 896.1               | 889.3               | 1.8             | 2.3         | -138.53               | -25.2                             | 62.8       | 95.0                 | 91.2                  | 3.83                   | 24.817            |                           |         |
| 1,000.0  | 995.6               | 991.2               | 981.2               | 2.1             | 2.7         | -132.73               | -47.7                             | 72.5       | 119.1                | 114.6                 | 4.47                   | 26.607            |                           |         |
| 1,100.0  | 1,093.3             | 1,085.9             | 1,071.9             | 2.5             | 3.2         | -128.78               | -72.5                             | 83.1       | 146.7                | 141.5                 | 5.17                   | 28.394            |                           |         |
| 1,200.0  | 1,191.0             | 1,181.5             | 1,163.5             | 2.9             | 3.7         | -126.00               | -97.9                             | 94.0       | 175.0                | 169.1                 | 5.88                   | 29.770            |                           |         |
| 1,300.0  | 1,288.6             | 1,277.1             | 1,255.0             | 3.3             | 4.2         | -124.00               | -123.3                            | 104.9      | 203.6                | 197.0                 | 6.60                   | 30.846            |                           |         |
| 1,400.0  | 1,386.3             | 1,372.7             | 1,346.5             | 3.7             | 4.7         | -122.49               | -148.7                            | 115.9      | 232.4                | 225.1                 | 7.33                   | 31.706            |                           |         |
| 1,500.0  | 1,483.9             | 1,468.3             | 1,438.0             | 4.1             | 5.2         | -121.31               | -174.1                            | 126.8      | 261.3                | 253.3                 | 8.06                   | 32.406            |                           |         |
| 1,600.0  | 1,581.6             | 1,563.9             | 1,529.5             | 4.5             | 5.7         | -120.37               | -199.5                            | 137.7      | 290.3                | 281.5                 | 8.80                   | 32.985            |                           |         |
| 1,700.0  | 1,679.2             | 1,659.5             | 1,621.1             | 4.9             | 6.2         | -119.60               | -225.0                            | 148.6      | 319.4                | 309.8                 | 9.54                   | 33.471            |                           |         |
| 1,800.0  | 1,776.9             | 1,755.2             | 1,712.6             | 5.3             | 6.7         | -118.96               | -250.4                            | 159.5      | 348.4                | 338.2                 | 10.28                  | 33.885            |                           |         |
| 1,900.0  | 1,874.5             | 1,850.8             | 1,804.1             | 5.7             | 7.3         | -118.41               | -275.8                            | 170.4      | 377.6                | 366.5                 | 11.03                  | 34.242            |                           |         |
| 2,000.0  | 1,972.2             | 1,946.4             | 1,895.6             | 6.2             | 7.8         | -117.95               | -301.2                            | 181.3      | 406.7                | 394.9                 | 11.77                  | 34.552            |                           |         |
| 2,100.0  | 2,069.9             | 2,042.0             | 1,987.1             | 6.6             | 8.3         | -117.54               | -326.6                            | 192.3      | 435.9                | 423.4                 | 12.52                  | 34.823            |                           |         |
| 2,200.0  | 2,167.5             | 2,137.6             | 2,078.7             | 7.0             | 8.8         | -117.19               | -352.0                            | 203.2      | 465.1                | 451.8                 | 13.26                  | 35.064            |                           |         |
| 2,300.0  | 2,265.2             | 2,233.2             | 2,170.2             | 7.4             | 9.3         | -116.88               | -377.5                            | 214.1      | 494.3                | 480.3                 | 14.01                  | 35.278            |                           |         |
| 2,400.0  | 2,362.8             | 2,328.8             | 2,261.7             | 7.8             | 9.8         | -116.60               | -402.9                            | 225.0      | 523.5                | 508.7                 | 14.76                  | 35.469            |                           |         |
| 2,500.0  | 2,460.5             | 2,424.4             | 2,353.2             | 8.2             | 10.3        | -116.35               | -428.3                            | 235.9      | 552.7                | 537.2                 | 15.51                  | 35.642            |                           |         |
| 2,600.0  | 2,558.1             | 2,520.0             | 2,444.7             | 8.6             | 10.8        | -116.13               | -453.7                            | 246.8      | 582.0                | 565.7                 | 16.26                  | 35.798            |                           |         |
| 2,700.0  | 2,655.8             | 2,615.6             | 2,536.3             | 9.1             | 11.3        | -115.93               | -479.1                            | 257.7      | 611.2                | 594.2                 | 17.01                  | 35.940            |                           |         |
| 2,800.0  | 2,753.5             | 2,711.2             | 2,627.8             | 9.5             | 11.9        | -115.75               | -504.5                            | 268.7      | 640.4                | 622.7                 | 17.76                  | 36.070            |                           |         |
| 2,900.0  | 2,851.1             | 2,806.8             | 2,719.3             | 9.9             | 12.4        | -115.58               | -530.0                            | 279.6      | 669.7                | 651.2                 | 18.51                  | 36.189            |                           |         |
| 3,000.0  | 2,948.8             | 2,902.5             | 2,810.8             | 10.3            | 12.9        | -115.43               | -555.4                            | 290.5      | 698.9                | 679.7                 | 19.26                  | 36.298            |                           |         |
| 3,100.0  | 3,046.4             | 2,998.1             | 2,902.3             | 10.7            | 13.4        | -115.29               | -580.8                            | 301.4      | 728.2                | 708.2                 | 20.01                  | 36.399            |                           |         |
| 3,200.0  | 3,144.1             | 3,093.7             | 2,993.9             | 11.1            | 13.9        | -115.16               | -606.2                            | 312.3      | 757.5                | 736.7                 | 20.76                  | 36.493            |                           |         |
| 3,300.0  | 3,241.7             | 3,189.3             | 3,085.4             | 11.5            | 14.4        | -115.04               | -631.6                            | 323.2      | 786.7                | 765.2                 | 21.51                  | 36.579            |                           |         |
| 3,400.0  | 3,339.4             | 3,284.9             | 3,176.9             | 12.0            | 14.9        | -114.92               | -657.0                            | 334.1      | 816.0                | 793.8                 | 22.26                  | 36.660            |                           |         |
| 3,500.0  | 3,437.1             | 3,380.5             | 3,268.4             | 12.4            | 15.4        | -114.82               | -682.5                            | 345.1      | 845.3                | 822.3                 | 23.01                  | 36.736            |                           |         |
| 3,600.0  | 3,534.7             | 3,476.1             | 3,359.9             | 12.8            | 16.0        | -114.72               | -707.9                            | 356.0      | 874.6                | 850.8                 | 23.76                  | 36.806            |                           |         |
| 3,700.0  | 3,632.4             | 3,571.7             | 3,451.5             | 13.2            | 16.5        | -114.63               | -733.3                            | 366.9      | 903.8                | 879.3                 | 24.51                  | 36.872            |                           |         |
| 3,800.0  | 3,730.0             | 3,667.3             | 3,543.0             | 13.6            | 17.0        | -114.55               | -758.7                            | 377.8      | 933.1                | 907.9                 | 25.26                  | 36.935            |                           |         |
| 3,900.0  | 3,827.7             | 3,762.9             | 3,634.5             | 14.1            | 17.5        | -114.47               | -784.1                            | 388.7      | 962.4                | 936.4                 | 26.02                  | 36.993            |                           |         |
| 4,000.0  | 3,925.3             | 3,858.5             | 3,726.0             | 14.5            | 18.0        | -114.39               | -809.5                            | 399.6      | 991.7                | 964.9                 | 26.77                  | 37.048            |                           |         |
| 4,100.0  | 4,023.0             | 3,954.1             | 3,817.5             | 14.9            | 18.5        | -114.32               | -835.0                            | 410.5      | 1,021.0              | 993.5                 | 27.52                  | 37.100            |                           |         |
| 4,200.0  | 4,120.7             | 4,049.8             | 3,909.1             | 15.3            | 19.0        | -114.26               | -860.4                            | 421.5      | 1,050.3              | 1,022.0               | 28.27                  | 37.150            |                           |         |
| 4,300.0  | 4,218.3             | 4,145.4             | 4,000.6             | 15.7            | 19.5        | -114.19               | -885.8                            | 432.4      | 1,079.5              | 1,050.5               | 29.02                  | 37.196            |                           |         |
| 4,400.0  | 4,316.0             | 4,241.0             | 4,092.1             | 16.1            | 20.1        | -114.13               | -911.2                            | 443.3      | 1,108.8              | 1,079.1               | 29.77                  | 37.240            |                           |         |
| 4,500.0  | 4,413.6             | 4,336.6             | 4,183.6             | 16.6            | 20.6        | -114.08               | -936.6                            | 454.2      | 1,138.1              | 1,107.6               | 30.53                  | 37.283            |                           |         |
| 4,600.0  | 4,511.3             | 4,432.2             | 4,275.1             | 17.0            | 21.1        | -114.02               | -962.0                            | 465.1      | 1,167.4              | 1,136.1               | 31.28                  | 37.323            |                           |         |
| 4,700.0  | 4,608.9             | 4,527.8             | 4,366.7             | 17.4            | 21.6        | -113.97               | -987.5                            | 476.0      | 1,196.7              | 1,164.7               | 32.03                  | 37.361            |                           |         |
| 4,800.0  | 4,706.6             | 4,623.4             | 4,458.2             | 17.8            | 22.1        | -113.92               | -1,012.9                          | 486.9      | 1,226.0              | 1,193.2               | 32.78                  | 37.397            |                           |         |
| 4,900.0  | 4,804.2             | 4,719.0             | 4,549.7             | 18.2            | 22.6        | -113.88               | -1,038.3                          | 497.9      | 1,255.3              | 1,221.8               | 33.54                  | 37.432            |                           |         |
| 5,000.0  | 4,901.9             | 4,814.6             | 4,641.2             | 18.6            | 23.1        | -113.83               | -1,063.7                          | 508.8      | 1,284.6              | 1,250.3               | 34.29                  | 37.465            |                           |         |

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

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

| Offset Design         |          |          |          |                 |        |          |                 |        |         |          |             | NENE S21-T6S-R96W (B21 696 Pad) - OM08D B21 696 - DD - Plan #1 |         | Offset Site Error: |  | 0.0 ft |  |
|-----------------------|----------|----------|----------|-----------------|--------|----------|-----------------|--------|---------|----------|-------------|--|---------|--------------------|--|--------|--|
| Survey Program: 0-MWD |          |          |          |                 |        |          |                 |        |         |          |             |  |         | Offset Well Error: |  | 0.0 ft |  |
| Reference             |          | Offset   |          | Semi Major Axis |        |          | Distance        |        |         |          |             |  |         |                    |  |        |  |
| Measured Depth        | Vertical | Measured | Vertical | Reference       | Offset | Highside | Offset Wellbore | Centre | Between | Between  | Total       | Separation   | Warning |                    |  |        |  |
| Depth                 | Depth    | Depth    | Depth    |                 |        | Toolface | +N/-S           | +E/-W  | Centres | Ellipses | Uncertainty | Factor   |         |                    |  |        |  |
| (ft)                  | (ft)     | (ft)     | (ft)     | (ft)            | (ft)   | (°)      | (ft)            | (ft)   | (ft)    | (ft)     | Axis        |  |         |                    |  |        |  |
| 5,100.0               | 4,999.6  | 4,910.2  | 4,732.7  | 19.1            | 23.7   | -113.79  | -1,089.1        | 519.7  | 1,313.9 | 1,278.8  | 35.04       | 37.496   |         |                    |  |        |  |
| 5,200.0               | 5,097.2  | 5,005.8  | 4,824.3  | 19.5            | 24.2   | -113.75  | -1,114.5        | 530.6  | 1,343.2 | 1,307.4  | 35.79       | 37.527   |         |                    |  |        |  |
| 5,300.0               | 5,194.9  | 5,101.4  | 4,915.8  | 19.9            | 24.7   | -113.71  | -1,140.0        | 541.5  | 1,372.5 | 1,335.9  | 36.54       | 37.556   |         |                    |  |        |  |

# Cathedral Energy Services

## Anticollision Report

|                           |                                  |                                     |                                     |
|---------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>           | Berry Petroleum Company (NAD 83) | <b>Local Co-ordinate Reference:</b> | Well OM07B B21 696                  |
| <b>Project:</b>           | Garfield County                  | <b>TVD Reference:</b>               | KBE @ 8293.0ft (Original Well Elev) |
| <b>Reference Site:</b>    | NENE S21-T6S-R96W (B21 696 Pad)  | <b>MD Reference:</b>                | KBE @ 8293.0ft (Original Well Elev) |
| <b>Site Error:</b>        | 0.0ft                            | <b>North Reference:</b>             | True                                |
| <b>Reference Well:</b>    | OM07B B21 696                    | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Well Error:</b>        | 0.0ft                            | <b>Output errors are at</b>         | 2.00 sigma                          |
| <b>Reference Wellbore</b> | DD                               | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |
| <b>Reference Design:</b>  | Plan #1                          | <b>Offset TVD Reference:</b>        | Offset Datum                        |

Reference Depths are relative to KBE @ 8293.0ft (Original Well Elev)  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: OM07B B21 696  
Coordinate System is US State Plane 1983, Colorado Central Zone  
Grid Convergence at Surface is: -1.65°

