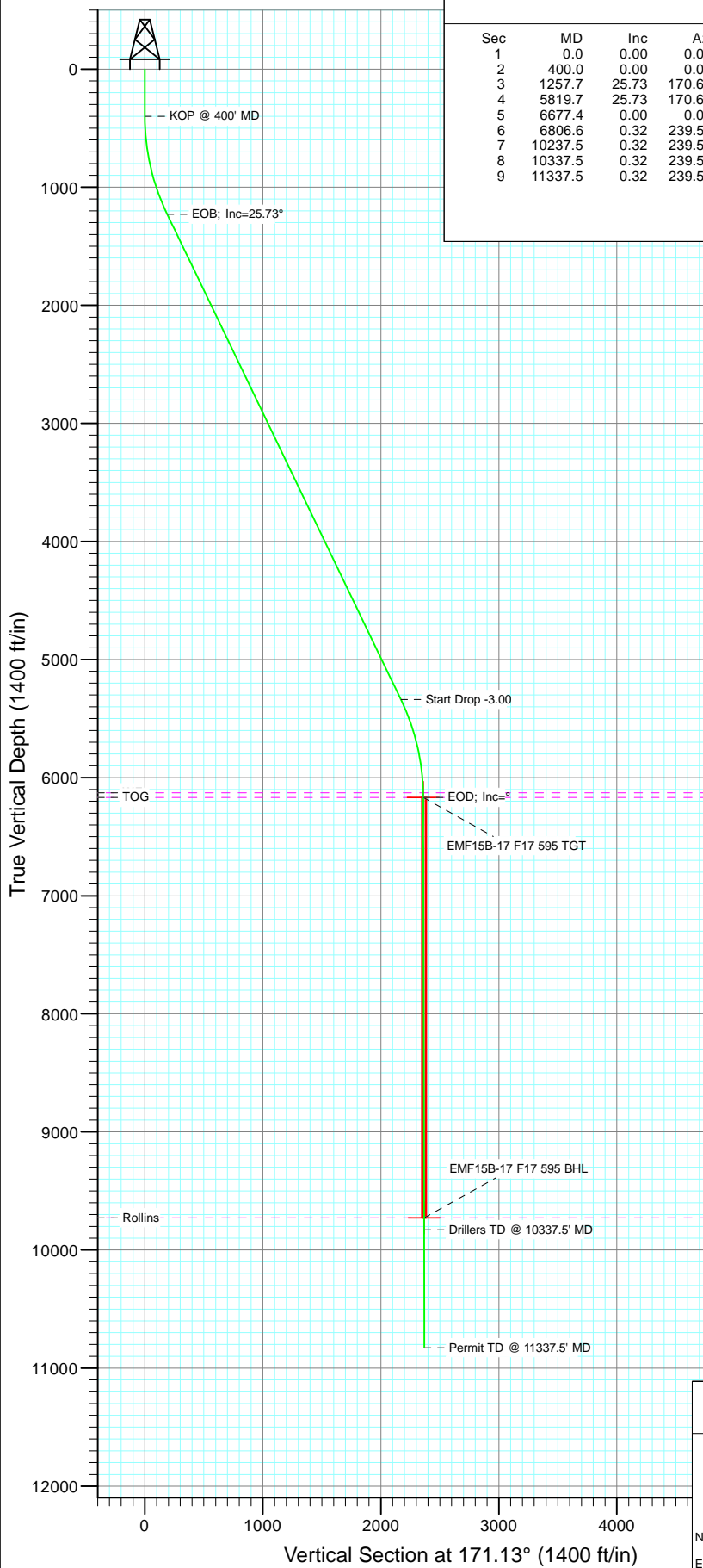
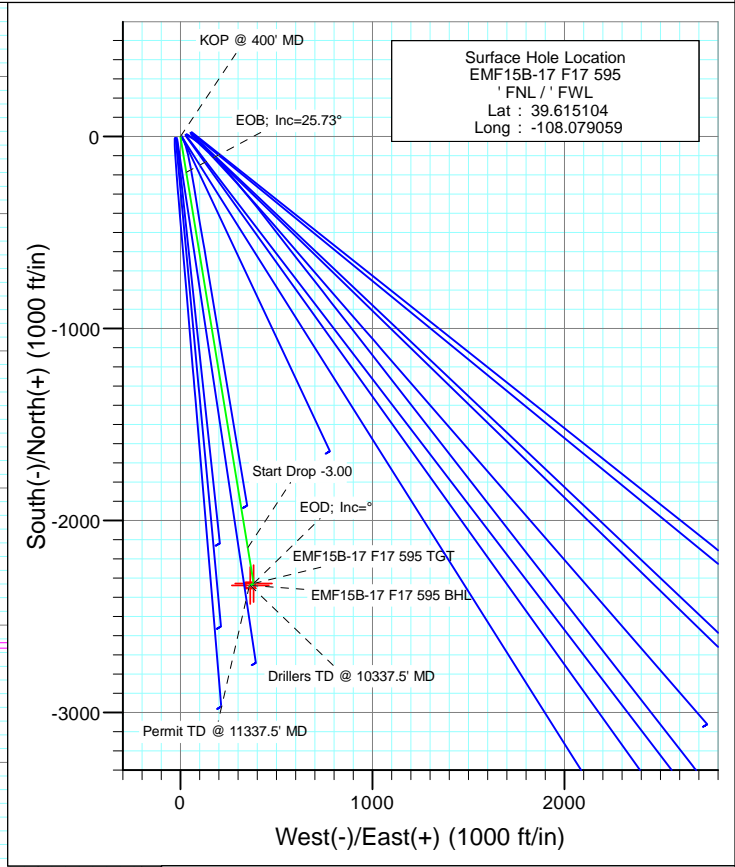




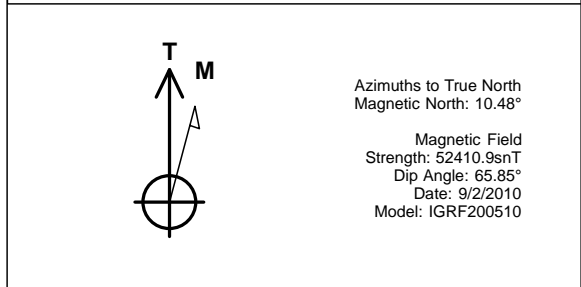
Project: North Piceance  
Site: F17 595 Pad  
Well: EMF15B-17 F17 595  
Wellbore: DD  
Design: Plan #4



| SECTION DETAILS |         |       |        |         |         |       |      |        |        |                       |
|-----------------|---------|-------|--------|---------|---------|-------|------|--------|--------|-----------------------|
| Sec             | MD      | Inc   | Azi    | TVD     | +N/-S   | +E/-W | Dleg | TFace  | Vsect  | 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               | 1257.7  | 25.73 | 170.69 | 1229.1  | -186.9  | 30.6  | 3.00 | 170.69 | 189.4  |                       |
| 4               | 5819.7  | 25.73 | 170.69 | 5338.9  | -2141.3 | 351.2 | 0.00 | 0.00   | 2169.9 |                       |
| 5               | 6677.4  | 0.00  | 0.00   | 6168.0  | -2328.2 | 381.8 | 3.00 | 180.00 | 2359.2 | EMF15B-17 F17 595 TGT |
| 6               | 6806.6  | 0.32  | 239.59 | 6297.2  | -2328.4 | 381.5 | 0.25 | 239.59 | 2359.4 |                       |
| 7               | 10237.5 | 0.32  | 239.59 | 9728.0  | -2338.2 | 364.8 | 0.00 | 0.00   | 2366.5 | EMF15B-17 F17 595 BHL |
| 8               | 10337.5 | 0.32  | 239.59 | 9828.0  | -2338.4 | 364.3 | 0.00 | 0.00   | 2366.7 |                       |
| 9               | 11337.5 | 0.32  | 239.59 | 10828.0 | -2341.3 | 359.5 | 0.00 | 0.00   | 2368.7 |                       |



| FORMATION TOP DETAILS |         |           |
|-----------------------|---------|-----------|
| TVDPath               | MDPath  | Formation |
| 6128.0                | 6637.4  | WF        |
| 6168.0                | 6677.4  | TOG       |
| 9728.0                | 10237.5 | Rollins   |



| Plan #4<br>EMF15B-17 F17 595<br>105XXX; LR   |                       |         |        |           |             |     |
|--|-----------------------|---------|--------|-----------|-------------|-----|
| KBE2 @ 6330.0ft<br>North American Datum 1983<br>Well EMF15B-17 F17 595, True North |                       |         |        |           |             |     |
| Type   | Target                | Azimuth | Origin | Type      | N/S         | E/W |
| Target   | EMF15B-17 F17 595 BHL | 171.13  | Slot   |           | 0.0         | 0.0 |
| From TVD   |                       |         |        |           |             |     |
| Name   | TVD                   | +N/-S   | +E/-W  | Latitude  | Longitude   |     |
| EMF15B-17 F17 595 BHL  | 6168.0                | -2328.2 | 381.8  | 39.608712 | -108.077703 |     |
|  | 9728.0                | -2338.2 | 364.8  | 39.608685 | -108.077764 |     |

# Cathedral Energy Services

## Planning Report

|                  |                             |                                     |                        |
|------------------|-----------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well EMF15B-17 F17 595 |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | KBE2 @ 6330.0ft        |
| <b>Project:</b>  | North Piceance              | <b>MD Reference:</b>                | KBE2 @ 6330.0ft        |
| <b>Site:</b>     | F17 595 Pad                 | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | EMF15B-17 F17 595           | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | DD                          |                                     |                        |
| <b>Design:</b>   | Plan #4                     |                                     |                        |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | North Piceance            |                      |                |
| <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                  |          | F17 595 Pad  |                 |                   |                 |
| Site Position:        |          | Northing:    | 1,659,259.22 ft | Latitude:         | 39° 36' 54.52 N |
| From:                 | Lat/Long | Easting:     | 2,273,585.37 ft | Longitude:        | 108° 4' 43.81 W |
| Position Uncertainty: | 0.0 ft   | Slot Radius: | 13.200 in       | Grid Convergence: | -1.63 °         |

|                      |                   |        |                     |                 |               |                 |
|----------------------|-------------------|--------|---------------------|-----------------|---------------|-----------------|
| Well                 | EMF15B-17 F17 595 |        |                     |                 |               |                 |
| Well Position        | +N/-S             | 0.0 ft | Northing:           | 1,659,246.23 ft | Latitude:     | 39° 36' 54.37 N |
|                      | +E/-W             | 0.0 ft | Easting:            | 2,273,522.21 ft | Longitude:    | 108° 4' 44.61 W |
| Position Uncertainty |                   | 0.0 ft | Wellhead Elevation: | ft              | Ground Level: | 6,308.0 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        | 9/2/2010           | 10.48                  | 65.85                | 52,411                     |

|                          |                              |                   |                      |                      |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| <b>Design</b>            | Plan #4                      |                   |                      |                      |
| <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                  | 171.13               |

| <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    |                   |
| 1,257.7              | 25.73           | 170.69      | 1,229.1             | -186.9     | 30.6       | 3.00                  | 3.00                 | 0.00                | 170.69  |                   |
| 5,819.7              | 25.73           | 170.69      | 5,338.9             | -2,141.3   | 351.2      | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 6,677.4              | 0.00            | 0.00        | 6,168.0             | -2,328.2   | 381.8      | 3.00                  | -3.00                | 0.00                | 180.00  | EMF15B-17 F17 595 |
| 6,806.6              | 0.32            | 239.59      | 6,297.2             | -2,328.4   | 381.5      | 0.25                  | 0.25                 | -93.21              | 239.59  |                   |
| 10,237.5             | 0.32            | 239.59      | 9,728.0             | -2,338.2   | 364.8      | 0.00                  | 0.00                 | 0.00                | 0.00    | EMF15B-17 F17 595 |
| 10,337.5             | 0.32            | 239.59      | 9,828.0             | -2,338.4   | 364.3      | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |
| 11,337.5             | 0.32            | 239.59      | 10,828.0            | -2,341.3   | 359.5      | 0.00                  | 0.00                 | 0.00                | 0.00    |                   |

# Cathedral Energy Services

## Planning Report

|                  |                             |                                     |                        |
|------------------|-----------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well EMF15B-17 F17 595 |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | KBE2 @ 6330.0ft        |
| <b>Project:</b>  | North Piceance              | <b>MD Reference:</b>                | KBE2 @ 6330.0ft        |
| <b>Site:</b>     | F17 595 Pad                 | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | EMF15B-17 F17 595           | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | DD                          |                                     |                        |
| <b>Design:</b>   | Plan #4                     |                                     |                        |

### Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| 0.0                 | 0.00            | 0.00        | 0.0                 | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 100.0               | 0.00            | 0.00        | 100.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 200.0               | 0.00            | 0.00        | 200.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 300.0               | 0.00            | 0.00        | 300.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 |                       |
| 400.0               | 0.00            | 0.00        | 400.0               | 0.0        | 0.0        | 0.0                   | 0.00                  | 0.00                 | KOP @ 400' MD         |
| 500.0               | 3.00            | 170.69      | 500.0               | -2.6       | 0.4        | 2.6                   | 3.00                  | 3.00                 |                       |
| 600.0               | 6.00            | 170.69      | 599.6               | -10.3      | 1.7        | 10.5                  | 3.00                  | 3.00                 |                       |
| 700.0               | 9.00            | 170.69      | 698.8               | -23.2      | 3.8        | 23.5                  | 3.00                  | 3.00                 |                       |
| 800.0               | 12.00           | 170.69      | 797.1               | -41.2      | 6.8        | 41.7                  | 3.00                  | 3.00                 |                       |
| 900.0               | 15.00           | 170.69      | 894.3               | -64.2      | 10.5       | 65.1                  | 3.00                  | 3.00                 |                       |
| 1,000.0             | 18.00           | 170.69      | 990.2               | -92.2      | 15.1       | 93.5                  | 3.00                  | 3.00                 |                       |
| 1,100.0             | 21.00           | 170.69      | 1,084.4             | -125.2     | 20.5       | 126.8                 | 3.00                  | 3.00                 |                       |
| 1,200.0             | 24.00           | 170.69      | 1,176.8             | -162.9     | 26.7       | 165.1                 | 3.00                  | 3.00                 |                       |
| 1,257.7             | 25.73           | 170.69      | 1,229.1             | -186.9     | 30.6       | 189.4                 | 3.00                  | 3.00                 | EOB; Inc=25.73°       |
| 1,300.0             | 25.73           | 170.69      | 1,267.3             | -205.0     | 33.6       | 207.7                 | 0.00                  | 0.00                 |                       |
| 1,400.0             | 25.73           | 170.69      | 1,357.3             | -247.8     | 40.6       | 251.1                 | 0.00                  | 0.00                 |                       |
| 1,500.0             | 25.73           | 170.69      | 1,447.4             | -290.7     | 47.7       | 294.6                 | 0.00                  | 0.00                 |                       |
| 1,600.0             | 25.73           | 170.69      | 1,537.5             | -333.5     | 54.7       | 338.0                 | 0.00                  | 0.00                 |                       |
| 1,700.0             | 25.73           | 170.69      | 1,627.6             | -376.4     | 61.7       | 381.4                 | 0.00                  | 0.00                 |                       |
| 1,800.0             | 25.73           | 170.69      | 1,717.7             | -419.2     | 68.7       | 424.8                 | 0.00                  | 0.00                 |                       |
| 1,900.0             | 25.73           | 170.69      | 1,807.8             | -462.1     | 75.8       | 468.2                 | 0.00                  | 0.00                 |                       |
| 2,000.0             | 25.73           | 170.69      | 1,897.9             | -504.9     | 82.8       | 511.6                 | 0.00                  | 0.00                 |                       |
| 2,100.0             | 25.73           | 170.69      | 1,987.9             | -547.7     | 89.8       | 555.0                 | 0.00                  | 0.00                 |                       |
| 2,200.0             | 25.73           | 170.69      | 2,078.0             | -590.6     | 96.8       | 598.4                 | 0.00                  | 0.00                 |                       |
| 2,300.0             | 25.73           | 170.69      | 2,168.1             | -633.4     | 103.9      | 641.9                 | 0.00                  | 0.00                 |                       |
| 2,400.0             | 25.73           | 170.69      | 2,258.2             | -676.3     | 110.9      | 685.3                 | 0.00                  | 0.00                 |                       |
| 2,500.0             | 25.73           | 170.69      | 2,348.3             | -719.1     | 117.9      | 728.7                 | 0.00                  | 0.00                 |                       |
| 2,600.0             | 25.73           | 170.69      | 2,438.4             | -761.9     | 125.0      | 772.1                 | 0.00                  | 0.00                 |                       |
| 2,700.0             | 25.73           | 170.69      | 2,528.5             | -804.8     | 132.0      | 815.5                 | 0.00                  | 0.00                 |                       |
| 2,800.0             | 25.73           | 170.69      | 2,618.5             | -847.6     | 139.0      | 858.9                 | 0.00                  | 0.00                 |                       |
| 2,900.0             | 25.73           | 170.69      | 2,708.6             | -890.5     | 146.0      | 902.3                 | 0.00                  | 0.00                 |                       |
| 3,000.0             | 25.73           | 170.69      | 2,798.7             | -933.3     | 153.1      | 945.7                 | 0.00                  | 0.00                 |                       |
| 3,100.0             | 25.73           | 170.69      | 2,888.8             | -976.1     | 160.1      | 989.2                 | 0.00                  | 0.00                 |                       |
| 3,200.0             | 25.73           | 170.69      | 2,978.9             | -1,019.0   | 167.1      | 1,032.6               | 0.00                  | 0.00                 |                       |
| 3,300.0             | 25.73           | 170.69      | 3,069.0             | -1,061.8   | 174.1      | 1,076.0               | 0.00                  | 0.00                 |                       |
| 3,400.0             | 25.73           | 170.69      | 3,159.0             | -1,104.7   | 181.2      | 1,119.4               | 0.00                  | 0.00                 |                       |
| 3,500.0             | 25.73           | 170.69      | 3,249.1             | -1,147.5   | 188.2      | 1,162.8               | 0.00                  | 0.00                 |                       |
| 3,600.0             | 25.73           | 170.69      | 3,339.2             | -1,190.4   | 195.2      | 1,206.2               | 0.00                  | 0.00                 |                       |
| 3,700.0             | 25.73           | 170.69      | 3,429.3             | -1,233.2   | 202.2      | 1,249.6               | 0.00                  | 0.00                 |                       |
| 3,800.0             | 25.73           | 170.69      | 3,519.4             | -1,276.0   | 209.3      | 1,293.0               | 0.00                  | 0.00                 |                       |
| 3,900.0             | 25.73           | 170.69      | 3,609.5             | -1,318.9   | 216.3      | 1,336.5               | 0.00                  | 0.00                 |                       |
| 4,000.0             | 25.73           | 170.69      | 3,699.6             | -1,361.7   | 223.3      | 1,379.9               | 0.00                  | 0.00                 |                       |
| 4,100.0             | 25.73           | 170.69      | 3,789.6             | -1,404.6   | 230.3      | 1,423.3               | 0.00                  | 0.00                 |                       |
| 4,200.0             | 25.73           | 170.69      | 3,879.7             | -1,447.4   | 237.4      | 1,466.7               | 0.00                  | 0.00                 |                       |
| 4,300.0             | 25.73           | 170.69      | 3,969.8             | -1,490.2   | 244.4      | 1,510.1               | 0.00                  | 0.00                 |                       |
| 4,400.0             | 25.73           | 170.69      | 4,059.9             | -1,533.1   | 251.4      | 1,553.5               | 0.00                  | 0.00                 |                       |
| 4,500.0             | 25.73           | 170.69      | 4,150.0             | -1,575.9   | 258.4      | 1,596.9               | 0.00                  | 0.00                 |                       |
| 4,600.0             | 25.73           | 170.69      | 4,240.1             | -1,618.8   | 265.5      | 1,640.3               | 0.00                  | 0.00                 |                       |
| 4,700.0             | 25.73           | 170.69      | 4,330.1             | -1,661.6   | 272.5      | 1,683.8               | 0.00                  | 0.00                 |                       |
| 4,800.0             | 25.73           | 170.69      | 4,420.2             | -1,704.4   | 279.5      | 1,727.2               | 0.00                  | 0.00                 |                       |
| 4,900.0             | 25.73           | 170.69      | 4,510.3             | -1,747.3   | 286.5      | 1,770.6               | 0.00                  | 0.00                 |                       |
| 5,000.0             | 25.73           | 170.69      | 4,600.4             | -1,790.1   | 293.6      | 1,814.0               | 0.00                  | 0.00                 |                       |

# Cathedral Energy Services

## Planning Report

|                  |                             |                                     |                        |
|------------------|-----------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well EMF15B-17 F17 595 |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | KBE2 @ 6330.0ft        |
| <b>Project:</b>  | North Piceance              | <b>MD Reference:</b>                | KBE2 @ 6330.0ft        |
| <b>Site:</b>     | F17 595 Pad                 | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | EMF15B-17 F17 595           | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | DD                          |                                     |                        |
| <b>Design:</b>   | Plan #4                     |                                     |                        |

| 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                    |
| 5,100.0             | 25.73           | 170.69      | 4,690.5             | -1,833.0   | 300.6      | 1,857.4               | 0.00                  | 0.00                 |  |
| 5,200.0             | 25.73           | 170.69      | 4,780.6             | -1,875.8   | 307.6      | 1,900.8               | 0.00                  | 0.00                 |  |
| 5,300.0             | 25.73           | 170.69      | 4,870.7             | -1,918.7   | 314.6      | 1,944.2               | 0.00                  | 0.00                 |  |
| 5,400.0             | 25.73           | 170.69      | 4,960.7             | -1,961.5   | 321.7      | 1,987.6               | 0.00                  | 0.00                 |  |
| 5,500.0             | 25.73           | 170.69      | 5,050.8             | -2,004.3   | 328.7      | 2,031.0               | 0.00                  | 0.00                 |  |
| 5,600.0             | 25.73           | 170.69      | 5,140.9             | -2,047.2   | 335.7      | 2,074.5               | 0.00                  | 0.00                 |  |
| 5,700.0             | 25.73           | 170.69      | 5,231.0             | -2,090.0   | 342.7      | 2,117.9               | 0.00                  | 0.00                 |  |
| 5,800.0             | 25.73           | 170.69      | 5,321.1             | -2,132.9   | 349.8      | 2,161.3               | 0.00                  | 0.00                 |  |
| 5,819.7             | 25.73           | 170.69      | 5,338.9             | -2,141.3   | 351.2      | 2,169.9               | 0.00                  | 0.00                 | Start Drop -3.00                         |
| 5,900.0             | 23.32           | 170.69      | 5,411.9             | -2,174.2   | 356.5      | 2,203.2               | 3.00                  | -3.00                |  |
| 6,000.0             | 20.32           | 170.69      | 5,504.7             | -2,210.9   | 362.6      | 2,240.3               | 3.00                  | -3.00                |  |
| 6,100.0             | 17.32           | 170.69      | 5,599.3             | -2,242.7   | 367.8      | 2,272.6               | 3.00                  | -3.00                |  |
| 6,200.0             | 14.32           | 170.69      | 5,695.5             | -2,269.6   | 372.2      | 2,299.9               | 3.00                  | -3.00                |  |
| 6,300.0             | 11.32           | 170.69      | 5,793.0             | -2,291.5   | 375.8      | 2,322.0               | 3.00                  | -3.00                |  |
| 6,400.0             | 8.32            | 170.69      | 5,891.6             | -2,308.3   | 378.5      | 2,339.1               | 3.00                  | -3.00                |  |
| 6,500.0             | 5.32            | 170.69      | 5,990.8             | -2,320.1   | 380.5      | 2,351.0               | 3.00                  | -3.00                |  |
| 6,600.0             | 2.32            | 170.69      | 6,090.6             | -2,326.6   | 381.5      | 2,357.6               | 3.00                  | -3.00                |  |
| 6,637.4             | 1.20            | 170.69      | 6,128.0             | -2,327.8   | 381.7      | 2,358.8               | 3.00                  | -3.00                | WF                                       |
| 6,677.4             | 0.00            | 0.00        | 6,168.0             | -2,328.2   | 381.8      | 2,359.2               | 3.00                  | -3.00                | EOD; Inc=° - TOG - EMF15B-17 F17 595 TGT |
| 6,700.0             | 0.06            | 239.59      | 6,190.6             | -2,328.2   | 381.8      | 2,359.2               | 0.25                  | 0.25                 |  |
| 6,800.0             | 0.31            | 239.59      | 6,290.6             | -2,328.4   | 381.5      | 2,359.3               | 0.25                  | 0.25                 |  |
| 6,806.6             | 0.32            | 239.59      | 6,297.2             | -2,328.4   | 381.5      | 2,359.4               | 0.25                  | 0.25                 |  |
| 6,900.0             | 0.32            | 239.59      | 6,390.6             | -2,328.6   | 381.0      | 2,359.5               | 0.00                  | 0.00                 |  |
| 7,000.0             | 0.32            | 239.59      | 6,490.6             | -2,328.9   | 380.5      | 2,359.8               | 0.00                  | 0.00                 |  |
| 7,100.0             | 0.32            | 239.59      | 6,590.6             | -2,329.2   | 380.1      | 2,360.0               | 0.00                  | 0.00                 |  |
| 7,200.0             | 0.32            | 239.59      | 6,690.6             | -2,329.5   | 379.6      | 2,360.2               | 0.00                  | 0.00                 |  |
| 7,300.0             | 0.32            | 239.59      | 6,790.6             | -2,329.8   | 379.1      | 2,360.4               | 0.00                  | 0.00                 |  |
| 7,400.0             | 0.32            | 239.59      | 6,890.6             | -2,330.1   | 378.6      | 2,360.6               | 0.00                  | 0.00                 |  |
| 7,500.0             | 0.32            | 239.59      | 6,990.6             | -2,330.4   | 378.1      | 2,360.8               | 0.00                  | 0.00                 |  |
| 7,600.0             | 0.32            | 239.59      | 7,090.6             | -2,330.6   | 377.6      | 2,361.0               | 0.00                  | 0.00                 |  |
| 7,700.0             | 0.32            | 239.59      | 7,190.6             | -2,330.9   | 377.1      | 2,361.2               | 0.00                  | 0.00                 |  |
| 7,800.0             | 0.32            | 239.59      | 7,290.6             | -2,331.2   | 376.7      | 2,361.4               | 0.00                  | 0.00                 |  |
| 7,900.0             | 0.32            | 239.59      | 7,390.6             | -2,331.5   | 376.2      | 2,361.6               | 0.00                  | 0.00                 |  |
| 8,000.0             | 0.32            | 239.59      | 7,490.6             | -2,331.8   | 375.7      | 2,361.8               | 0.00                  | 0.00                 |  |
| 8,100.0             | 0.32            | 239.59      | 7,590.6             | -2,332.1   | 375.2      | 2,362.0               | 0.00                  | 0.00                 |  |
| 8,200.0             | 0.32            | 239.59      | 7,690.6             | -2,332.4   | 374.7      | 2,362.2               | 0.00                  | 0.00                 |  |
| 8,300.0             | 0.32            | 239.59      | 7,790.6             | -2,332.6   | 374.2      | 2,362.4               | 0.00                  | 0.00                 |  |
| 8,400.0             | 0.32            | 239.59      | 7,890.6             | -2,332.9   | 373.7      | 2,362.6               | 0.00                  | 0.00                 |  |
| 8,500.0             | 0.32            | 239.59      | 7,990.6             | -2,333.2   | 373.3      | 2,362.9               | 0.00                  | 0.00                 |  |
| 8,600.0             | 0.32            | 239.59      | 8,090.6             | -2,333.5   | 372.8      | 2,363.1               | 0.00                  | 0.00                 |  |
| 8,700.0             | 0.32            | 239.59      | 8,190.6             | -2,333.8   | 372.3      | 2,363.3               | 0.00                  | 0.00                 |  |
| 8,800.0             | 0.32            | 239.59      | 8,290.5             | -2,334.1   | 371.8      | 2,363.5               | 0.00                  | 0.00                 |  |
| 8,900.0             | 0.32            | 239.59      | 8,390.5             | -2,334.3   | 371.3      | 2,363.7               | 0.00                  | 0.00                 |  |
| 9,000.0             | 0.32            | 239.59      | 8,490.5             | -2,334.6   | 370.8      | 2,363.9               | 0.00                  | 0.00                 |  |
| 9,100.0             | 0.32            | 239.59      | 8,590.5             | -2,334.9   | 370.3      | 2,364.1               | 0.00                  | 0.00                 |  |
| 9,200.0             | 0.32            | 239.59      | 8,690.5             | -2,335.2   | 369.9      | 2,364.3               | 0.00                  | 0.00                 |  |
| 9,300.0             | 0.32            | 239.59      | 8,790.5             | -2,335.5   | 369.4      | 2,364.5               | 0.00                  | 0.00                 |  |
| 9,400.0             | 0.32            | 239.59      | 8,890.5             | -2,335.8   | 368.9      | 2,364.7               | 0.00                  | 0.00                 |  |
| 9,500.0             | 0.32            | 239.59      | 8,990.5             | -2,336.1   | 368.4      | 2,364.9               | 0.00                  | 0.00                 |  |
| 9,600.0             | 0.32            | 239.59      | 9,090.5             | -2,336.3   | 367.9      | 2,365.1               | 0.00                  | 0.00                 |  |
| 9,700.0             | 0.32            | 239.59      | 9,190.5             | -2,336.6   | 367.4      | 2,365.3               | 0.00                  | 0.00                 |  |
| 9,800.0             | 0.32            | 239.59      | 9,290.5             | -2,336.9   | 366.9      | 2,365.5               | 0.00                  | 0.00                 |  |

# Cathedral Energy Services

## Planning Report

|                  |                             |                                     |                        |
|------------------|-----------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well EMF15B-17 F17 595 |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | KBE2 @ 6330.0ft        |
| <b>Project:</b>  | North Piceance              | <b>MD Reference:</b>                | KBE2 @ 6330.0ft        |
| <b>Site:</b>     | F17 595 Pad                 | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | EMF15B-17 F17 595           | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | DD                          |                                     |                        |
| <b>Design:</b>   | Plan #4                     |                                     |                        |

| Planned Survey      |                 |             |                     |            |            |                       |                       |                      |                                 |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations           |
| 9,900.0             | 0.32            | 239.59      | 9,390.5             | -2,337.2   | 366.4      | 2,365.8               | 0.00                  | 0.00                 |                                 |
| 10,000.0            | 0.32            | 239.59      | 9,490.5             | -2,337.5   | 366.0      | 2,366.0               | 0.00                  | 0.00                 |                                 |
| 10,100.0            | 0.32            | 239.59      | 9,590.5             | -2,337.8   | 365.5      | 2,366.2               | 0.00                  | 0.00                 |                                 |
| 10,200.0            | 0.32            | 239.59      | 9,690.5             | -2,338.1   | 365.0      | 2,366.4               | 0.00                  | 0.00                 |                                 |
| 10,237.5            | 0.32            | 239.59      | 9,728.0             | -2,338.2   | 364.8      | 2,366.5               | 0.00                  | 0.00                 | Rollins - EMF15B-17 F17 595 BHL |
| 10,300.0            | 0.32            | 239.59      | 9,790.5             | -2,338.3   | 364.5      | 2,366.6               | 0.00                  | 0.00                 |                                 |
| 10,337.5            | 0.32            | 239.59      | 9,828.0             | -2,338.4   | 364.3      | 2,366.7               | 0.00                  | 0.00                 | Drillers TD @ 10337.5' MD       |
| 10,400.0            | 0.32            | 239.59      | 9,890.5             | -2,338.6   | 364.0      | 2,366.8               | 0.00                  | 0.00                 |                                 |
| 10,500.0            | 0.32            | 239.59      | 9,990.5             | -2,338.9   | 363.5      | 2,367.0               | 0.00                  | 0.00                 |                                 |
| 10,600.0            | 0.32            | 239.59      | 10,090.5            | -2,339.2   | 363.0      | 2,367.2               | 0.00                  | 0.00                 |                                 |
| 10,700.0            | 0.32            | 239.59      | 10,190.5            | -2,339.5   | 362.6      | 2,367.4               | 0.00                  | 0.00                 |                                 |
| 10,800.0            | 0.32            | 239.59      | 10,290.5            | -2,339.8   | 362.1      | 2,367.6               | 0.00                  | 0.00                 |                                 |
| 10,900.0            | 0.32            | 239.59      | 10,390.5            | -2,340.1   | 361.6      | 2,367.8               | 0.00                  | 0.00                 |                                 |
| 11,000.0            | 0.32            | 239.59      | 10,490.5            | -2,340.3   | 361.1      | 2,368.0               | 0.00                  | 0.00                 |                                 |
| 11,100.0            | 0.32            | 239.59      | 10,590.5            | -2,340.6   | 360.6      | 2,368.2               | 0.00                  | 0.00                 |                                 |
| 11,200.0            | 0.32            | 239.59      | 10,690.5            | -2,340.9   | 360.1      | 2,368.4               | 0.00                  | 0.00                 |                                 |
| 11,300.0            | 0.32            | 239.59      | 10,790.5            | -2,341.2   | 359.6      | 2,368.6               | 0.00                  | 0.00                 |                                 |
| 11,337.5            | 0.32            | 239.59      | 10,828.0            | -2,341.3   | 359.5      | 2,368.7               | 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       |
| EMF15B-17 F17 595 BH<br>- hit/miss target<br>- Shape<br>- plan hits target center<br>- Rectangle (sides W30.0 H50.0 D0.0) | 0.00          | 0.00         | 9,728.0  | -2,338.2   | 364.8      | 1,656,898.66  | 2,273,820.50 | 39° 36' 31.27 N | 108° 4' 39.95 W |
| EMF15B-17 F17 595 TC<br>- plan hits target center<br>- Point  | 0.00          | 0.00         | 6,168.0  | -2,328.2   | 381.8      | 1,656,908.14  | 2,273,837.77 | 39° 36' 31.36 N | 108° 4' 39.73 W |

| Formations          |                     |         |           |         |                   |  |
|---------------------|---------------------|---------|-----------|---------|-------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Name    | Lithology | Dip (°) | Dip Direction (°) |  |
| 6,637.4             | 6,128.0             | WF      |           | 0.00    |                   |  |
| 6,677.4             | 6,168.0             | TOG     |           | 0.00    |                   |  |
| 10,237.5            | 9,728.0             | Rollins |           | 0.00    |                   |  |

# Cathedral Energy Services

## Planning Report

|                  |                             |                                     |                        |
|------------------|-----------------------------|-------------------------------------|------------------------|
| <b>Database:</b> | USA EDM 5000 Multi Users DB | <b>Local Co-ordinate Reference:</b> | Well EMF15B-17 F17 595 |
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc  | <b>TVD Reference:</b>               | KBE2 @ 6330.0ft        |
| <b>Project:</b>  | North Piceance              | <b>MD Reference:</b>                | KBE2 @ 6330.0ft        |
| <b>Site:</b>     | F17 595 Pad                 | <b>North Reference:</b>             | True                   |
| <b>Well:</b>     | EMF15B-17 F17 595           | <b>Survey Calculation Method:</b>   | Minimum Curvature      |
| <b>Wellbore:</b> | DD                          |                                     |                        |
| <b>Design:</b>   | Plan #4                     |                                     |                        |

### Plan Annotations

| Measured<br>Depth<br>(ft) | Vertical<br>Depth<br>(ft) | Local Coordinates |               | Comment                   |
|---------------------------|---------------------------|-------------------|---------------|---------------------------|
|                           |                           | +N/-S<br>(ft)     | +E/-W<br>(ft) |                           |
| 400.0                     | 400.0                     | 0.0               | 0.0           | KOP @ 400' MD             |
| 1,257.7                   | 1,229.1                   | -186.9            | 30.6          | EOB; Inc=25.73°           |
| 5,819.7                   | 5,338.9                   | -2,141.3          | 351.2         | Start Drop -3.00          |
| 6,677.4                   | 6,168.0                   | -2,328.2          | 381.8         | EOD; Inc=°                |
| 10,337.5                  | 9,828.0                   | -2,328.4          | 381.5         | Drillers TD @ 10337.5' MD |
| 11,337.5                  | 10,828.0                  | -2,338.2          | 364.8         | Permit TD @ 11337.5' MD   |