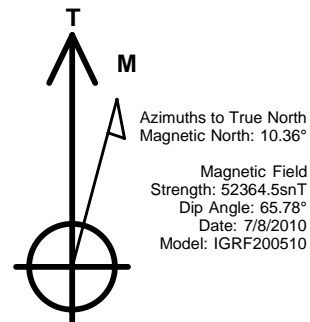
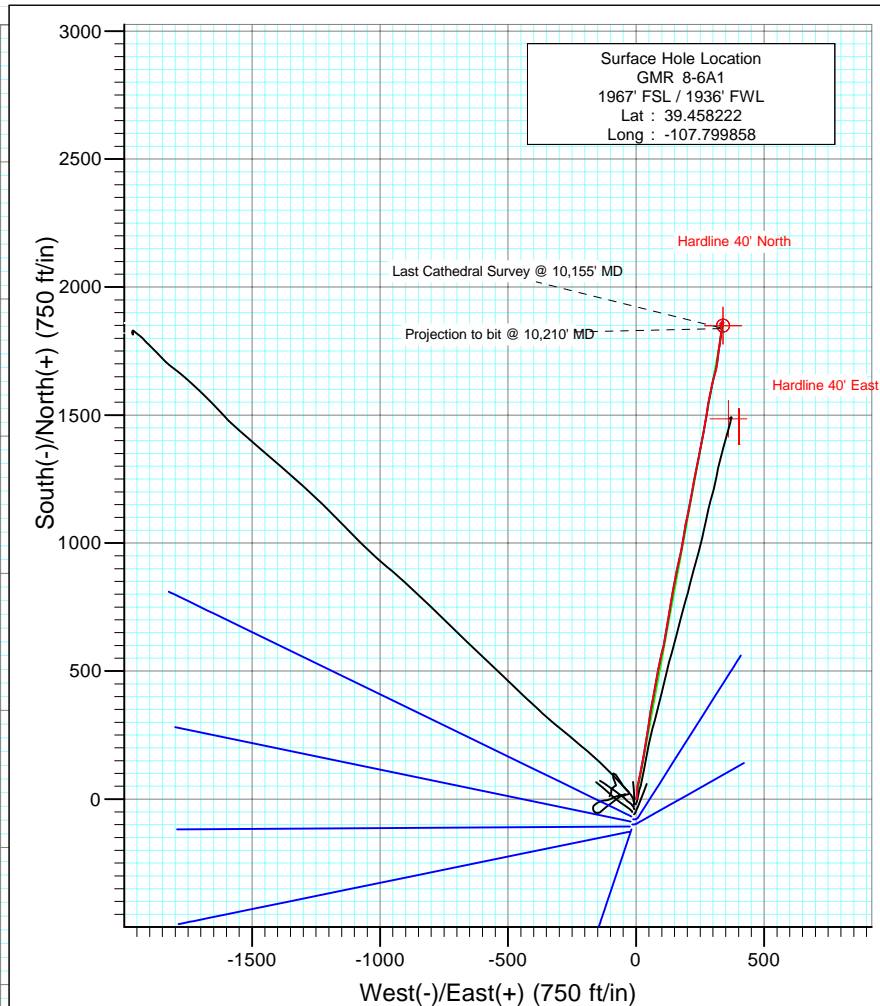
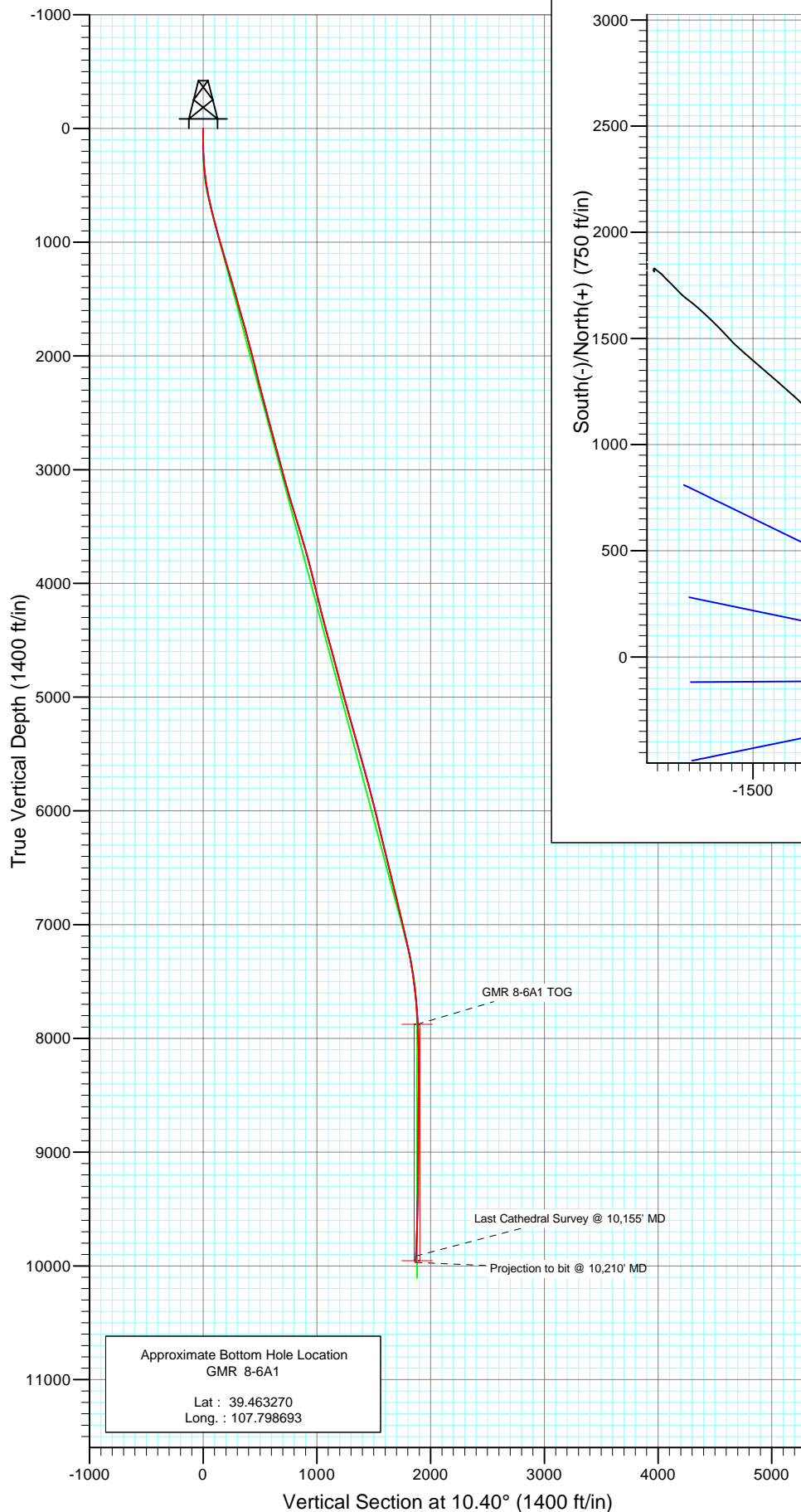


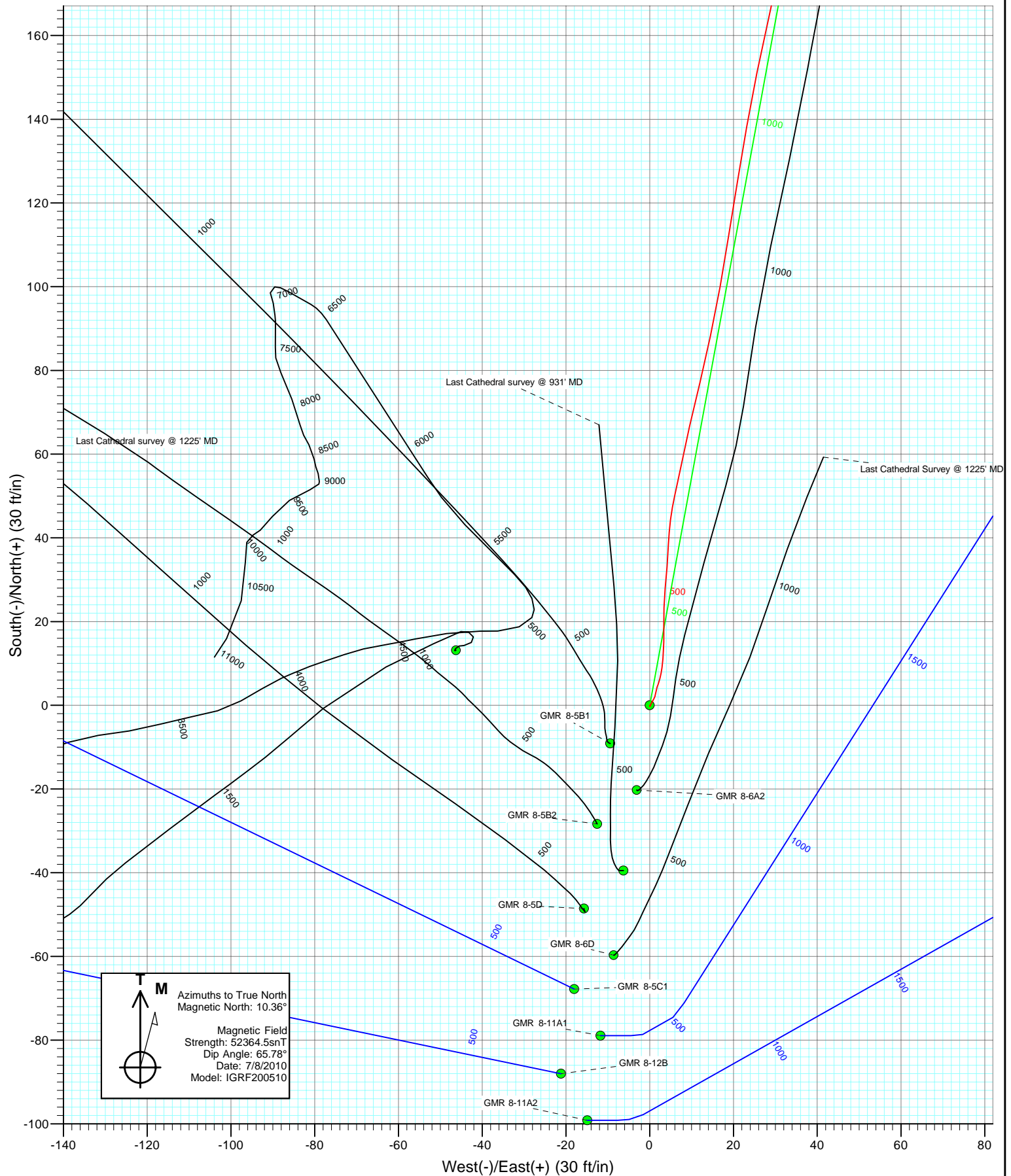


Project: Mamm Creek  
 Site: NESW S8 T7S R93W (K8W Pad)  
 Well: GMR 8-6A1  
 Wellbore: Final  
 Design: DD



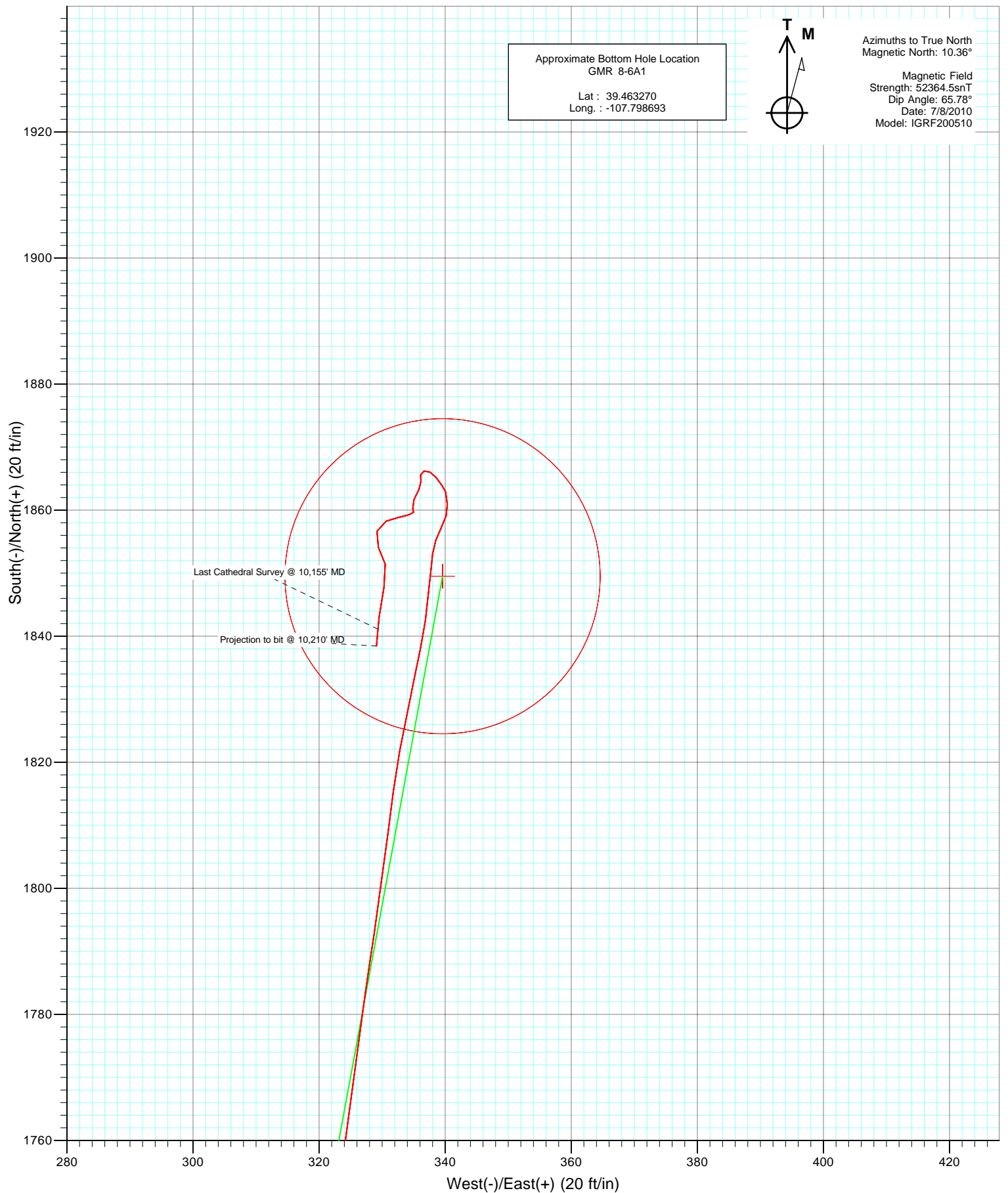
DESIGN DETAILS: DD  
 Job #105294: KR  
 KBE @ 7848.0ft (Original Well Elev)

| Target        | Azimuth | Origin | N/S | E/W | From TVD |
|---------------|---------|--------|-----|-----|----------|
| GMR 8-6A1 BHL | 10.40   | Slot   | 0.0 | 0.0 | 0.0      |





Project: Mamm Creek  
Site: NESW S8 T7S R93W (K8W Pad)  
Well: GMR 8-6A1  
Wellbore: Final  
Design: DD



# Cathedral Energy Services

## Survey Report

|                  |                            |                                     |                                     |
|------------------|----------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GMR 8-6A1                      |
| <b>Project:</b>  | Mamm Creek                 | <b>TVD Reference:</b>               | KBE @ 7848.0ft (Original Well Elev) |
| <b>Site:</b>     | NESW S8 T7S R93W (K8W Pad) | <b>MD Reference:</b>                | KBE @ 7848.0ft (Original Well Elev) |
| <b>Well:</b>     | GMR 8-6A1                  | <b>North Reference:</b>             | True                                |
| <b>Wellbore:</b> | Final                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | DD                         | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Mamm Creek                |                      |                |
| <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                  |          | NESW S8 T7S R93W (K8W Pad) |                 |                   |             |
| Site Position:        |          | Northing:                  | 1,599,999.23 ft | Latitude:         | 39.458194   |
| From:                 | Lat/Long | Easting:                   | 2,350,698.86 ft | Longitude:        | -107.799878 |
| Position Uncertainty: | 0.0 ft   | Slot Radius:               | 13.200 in       | Grid Convergence: | -1.45 °     |

|                      |           |        |                     |                 |               |             |
|----------------------|-----------|--------|---------------------|-----------------|---------------|-------------|
| Well                 | GMR 8-6A1 |        |                     |                 |               |             |
| Well Position        | +N/-S     | 0.0 ft | Northing:           | 1,600,009.20 ft | Latitude:     | 39.458222   |
|                      | +E/-W     | 0.0 ft | Easting:            | 2,350,704.61 ft | Longitude:    | -107.799858 |
| Position Uncertainty |           | 0.0 ft | Wellhead Elevation: | ft              | Ground Level: | 7,826.0 ft  |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Final             |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 7/8/2010           | 10.35                  | 65.78                | 52,365                     |

|                          |                         |               |              |                      |     |
|--------------------------|-------------------------|---------------|--------------|----------------------|-----|
| <b>Design</b>            | DD                      |               |              |                      |     |
| <b>Audit Notes:</b>      |                         |               |              |                      |     |
| <b>Version:</b>          | 1.0                     | <b>Phase:</b> | ACTUAL       | <b>Tie On Depth:</b> | 0.0 |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b>  | <b>+E/-W</b> | <b>Direction</b>     |     |
|                          | (ft)                    | (ft)          | (ft)         | (°)                  |     |
|                          | 0.0                     | 0.0           | 0.0          | 10.40                |     |

|                       |                |                          |                  |                    |  |
|-----------------------|----------------|--------------------------|------------------|--------------------|--|
| <b>Survey Program</b> | <b>Date</b>    | 8/6/2010                 |                  |                    |  |
| <b>From (ft)</b>      | <b>To (ft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |  |
| 103.0                 | 10,210.0       | Survey #1 (Final)        | MWD              | Geolink MWD        |  |

|                            |                        |                    |                            |                   |                   |                              |                              |                             |                              |  |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|------------------------------|-----------------------------|------------------------------|--|
| <b>Survey</b>              |                        |                    |                            |                   |                   |                              |                              |                             |                              |  |
| <b>Measured Depth (ft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (ft)</b> | <b>+N/-S (ft)</b> | <b>+E/-W (ft)</b> | <b>Vertical Section (ft)</b> | <b>Dogleg Rate (°/100ft)</b> | <b>Build Rate (°/100ft)</b> | <b>Formations / Comments</b> |  |
| 0.0                        | 0.00                   | 0.00               | 0.0                        | 0.0               | 0.0               | 0.0                          | 0.00                         | 0.00                        |                              |  |
| 103.0                      | 0.30                   | 173.60             | 103.0                      | -0.3              | 0.0               | -0.3                         | 0.29                         | 0.29                        |                              |  |
| 134.0                      | 0.30                   | 18.80              | 134.0                      | -0.3              | 0.1               | -0.3                         | 1.89                         | 0.00                        |                              |  |
| 165.0                      | 0.80                   | 21.80              | 165.0                      | 0.0               | 0.2               | 0.0                          | 1.62                         | 1.61                        |                              |  |
| 196.0                      | 1.80                   | 28.00              | 196.0                      | 0.6               | 0.5               | 0.7                          | 3.25                         | 3.23                        |                              |  |
| 226.0                      | 2.10                   | 29.40              | 226.0                      | 1.5               | 1.0               | 1.7                          | 1.01                         | 1.00                        |                              |  |
| 257.0                      | 2.80                   | 10.20              | 256.9                      | 2.8               | 1.4               | 3.0                          | 3.45                         | 2.26                        |                              |  |
| 287.0                      | 3.50                   | 16.80              | 286.9                      | 4.4               | 1.8               | 4.6                          | 2.62                         | 2.33                        |                              |  |
| 318.0                      | 4.70                   | 18.00              | 317.8                      | 6.5               | 2.4               | 6.8                          | 3.88                         | 3.87                        |                              |  |
| 349.0                      | 5.20                   | 2.80               | 348.7                      | 9.1               | 2.9               | 9.5                          | 4.51                         | 1.61                        |                              |  |
| 380.0                      | 5.80                   | 7.70               | 379.6                      | 12.0              | 3.2               | 12.4                         | 2.46                         | 1.94                        |                              |  |
| 410.0                      | 6.40                   | 359.10             | 409.4                      | 15.2              | 3.4               | 15.6                         | 3.64                         | 2.00                        |                              |  |
| 440.0                      | 7.70                   | 0.30               | 439.2                      | 18.9              | 3.3               | 19.2                         | 4.36                         | 4.33                        |                              |  |

# Cathedral Energy Services

## Survey Report

|                  |                            |                                     |                                     |
|------------------|----------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GMR 8-6A1                      |
| <b>Project:</b>  | Mamm Creek                 | <b>TVD Reference:</b>               | KBE @ 7848.0ft (Original Well Elev) |
| <b>Site:</b>     | NESW S8 T7S R93W (K8W Pad) | <b>MD Reference:</b>                | KBE @ 7848.0ft (Original Well Elev) |
| <b>Well:</b>     | GMR 8-6A1                  | <b>North Reference:</b>             | True                                |
| <b>Wellbore:</b> | Final                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | DD                         | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |

| Survey              |                 |             |                     |            |            |                       |                       |                      |                       |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Formations / Comments |
| 471.0               | 8.60            | 1.70        | 469.9               | 23.3       | 3.4        | 23.5                  | 2.97                  | 2.90                 |                       |
| 501.0               | 9.10            | 4.60        | 499.5               | 27.9       | 3.7        | 28.1                  | 2.23                  | 1.67                 |                       |
| 532.0               | 10.00           | 5.20        | 530.1               | 33.0       | 4.1        | 33.2                  | 2.92                  | 2.90                 |                       |
| 563.0               | 10.40           | 2.10        | 560.6               | 38.5       | 4.5        | 38.7                  | 2.19                  | 1.29                 |                       |
| 594.0               | 11.30           | 7.00        | 591.0               | 44.3       | 4.9        | 44.5                  | 4.15                  | 2.90                 |                       |
| 624.0               | 12.00           | 12.70       | 620.4               | 50.3       | 6.0        | 50.5                  | 4.49                  | 2.33                 |                       |
| 655.0               | 12.40           | 11.60       | 650.7               | 56.7       | 7.4        | 57.1                  | 1.49                  | 1.29                 |                       |
| 747.0               | 14.00           | 13.80       | 740.3               | 77.2       | 12.0       | 78.1                  | 1.82                  | 1.74                 |                       |
| 839.0               | 15.40           | 10.00       | 829.3               | 100.0      | 16.8       | 101.4                 | 1.85                  | 1.52                 |                       |
| 931.0               | 16.60           | 8.90        | 917.7               | 125.0      | 20.9       | 126.7                 | 1.35                  | 1.30                 |                       |
| 1,026.0             | 15.70           | 11.50       | 1,008.9             | 151.0      | 25.6       | 153.2                 | 1.22                  | -0.95                |                       |
| 1,120.0             | 16.00           | 12.60       | 1,099.4             | 176.1      | 31.0       | 178.8                 | 0.45                  | 0.32                 |                       |
| 1,219.0             | 15.80           | 7.80        | 1,194.6             | 202.8      | 35.8       | 205.9                 | 1.34                  | -0.20                |                       |
| 1,347.0             | 16.50           | 8.20        | 1,317.5             | 238.1      | 40.7       | 241.5                 | 0.55                  | 0.55                 |                       |
| 1,442.0             | 15.50           | 8.70        | 1,408.9             | 264.0      | 44.6       | 267.7                 | 1.06                  | -1.05                |                       |
| 1,537.0             | 16.00           | 8.50        | 1,500.3             | 289.5      | 48.4       | 293.4                 | 0.53                  | 0.53                 |                       |
| 1,633.0             | 16.10           | 8.00        | 1,592.5             | 315.7      | 52.2       | 320.0                 | 0.18                  | 0.10                 |                       |
| 1,728.0             | 15.50           | 10.30       | 1,684.0             | 341.3      | 56.3       | 345.8                 | 0.91                  | -0.63                |                       |
| 1,824.0             | 15.60           | 10.00       | 1,776.4             | 366.6      | 60.9       | 371.6                 | 0.13                  | 0.10                 |                       |
| 1,920.0             | 15.70           | 10.40       | 1,868.9             | 392.1      | 65.5       | 397.4                 | 0.15                  | 0.10                 |                       |
| 2,015.0             | 14.30           | 12.00       | 1,960.6             | 416.2      | 70.2       | 422.0                 | 1.54                  | -1.47                |                       |
| 2,110.0             | 13.20           | 8.40        | 2,052.9             | 438.4      | 74.2       | 444.6                 | 1.47                  | -1.16                |                       |
| 2,206.0             | 14.00           | 9.60        | 2,146.2             | 460.7      | 77.8       | 467.2                 | 0.88                  | 0.83                 |                       |
| 2,301.0             | 14.80           | 11.40       | 2,238.2             | 483.9      | 82.1       | 490.8                 | 0.96                  | 0.84                 |                       |
| 2,397.0             | 13.70           | 9.20        | 2,331.3             | 507.2      | 86.3       | 514.4                 | 1.28                  | -1.15                |                       |
| 2,492.0             | 14.70           | 13.10       | 2,423.4             | 530.0      | 90.9       | 537.7                 | 1.46                  | 1.05                 |                       |
| 2,587.0             | 14.70           | 13.80       | 2,515.3             | 553.5      | 96.5       | 561.8                 | 0.19                  | 0.00                 |                       |
| 2,682.0             | 15.60           | 13.40       | 2,607.0             | 577.6      | 102.3      | 586.6                 | 0.95                  | 0.95                 |                       |
| 2,777.0             | 15.00           | 11.20       | 2,698.6             | 602.1      | 107.7      | 611.6                 | 0.88                  | -0.63                |                       |
| 2,872.0             | 14.60           | 11.10       | 2,790.5             | 625.9      | 112.3      | 635.9                 | 0.42                  | -0.42                |                       |
| 2,968.0             | 15.50           | 9.70        | 2,883.2             | 650.4      | 116.8      | 660.8                 | 1.01                  | 0.94                 |                       |
| 3,063.0             | 15.00           | 9.00        | 2,974.8             | 675.1      | 120.9      | 685.8                 | 0.56                  | -0.53                |                       |
| 3,158.0             | 14.90           | 7.80        | 3,066.6             | 699.3      | 124.5      | 710.3                 | 0.34                  | -0.11                |                       |
| 3,254.0             | 15.70           | 9.30        | 3,159.2             | 724.3      | 128.3      | 735.6                 | 0.93                  | 0.83                 |                       |
| 3,349.0             | 16.20           | 9.60        | 3,250.5             | 750.1      | 132.5      | 761.7                 | 0.53                  | 0.53                 |                       |
| 3,445.0             | 17.20           | 11.10       | 3,342.5             | 777.2      | 137.5      | 789.3                 | 1.13                  | 1.04                 |                       |
| 3,541.0             | 17.40           | 10.50       | 3,434.2             | 805.3      | 142.9      | 817.8                 | 0.28                  | 0.21                 |                       |
| 3,636.0             | 17.40           | 9.40        | 3,524.8             | 833.3      | 147.8      | 846.2                 | 0.35                  | 0.00                 |                       |
| 3,731.0             | 16.50           | 11.20       | 3,615.7             | 860.5      | 152.7      | 873.9                 | 1.10                  | -0.95                |                       |
| 3,826.0             | 16.10           | 9.70        | 3,706.9             | 886.7      | 157.5      | 900.6                 | 0.61                  | -0.42                |                       |
| 3,922.0             | 14.40           | 13.70       | 3,799.5             | 911.4      | 162.6      | 925.8                 | 2.08                  | -1.77                |                       |
| 4,017.0             | 14.00           | 13.26       | 3,891.6             | 934.1      | 168.0      | 949.1                 | 0.44                  | -0.42                |                       |
| 4,112.0             | 13.50           | 12.00       | 3,983.9             | 956.1      | 173.0      | 971.7                 | 0.61                  | -0.53                |                       |
| 4,208.0             | 14.40           | 11.90       | 4,077.0             | 978.8      | 177.8      | 994.8                 | 0.94                  | 0.94                 |                       |
| 4,303.0             | 14.40           | 10.40       | 4,169.0             | 1,002.0    | 182.4      | 1,018.4               | 0.39                  | 0.00                 |                       |
| 4,399.0             | 13.50           | 8.30        | 4,262.2             | 1,024.8    | 186.1      | 1,041.5               | 1.08                  | -0.94                |                       |
| 4,494.0             | 14.70           | 8.60        | 4,354.3             | 1,047.7    | 189.5      | 1,064.7               | 1.27                  | 1.26                 |                       |
| 4,589.0             | 15.00           | 10.30       | 4,446.2             | 1,071.7    | 193.5      | 1,089.0               | 0.56                  | 0.32                 |                       |
| 4,685.0             | 15.80           | 12.50       | 4,538.7             | 1,096.7    | 198.6      | 1,114.5               | 1.03                  | 0.83                 |                       |
| 4,780.0             | 15.20           | 11.60       | 4,630.3             | 1,121.5    | 203.9      | 1,139.9               | 0.68                  | -0.63                |                       |
| 4,875.0             | 15.00           | 10.70       | 4,722.0             | 1,145.8    | 208.7      | 1,164.6               | 0.32                  | -0.21                |                       |
| 4,971.0             | 14.60           | 10.10       | 4,814.8             | 1,169.9    | 213.1      | 1,189.1               | 0.45                  | -0.42                |                       |
| 5,066.0             | 15.20           | 11.20       | 4,906.6             | 1,193.9    | 217.6      | 1,213.6               | 0.70                  | 0.63                 |                       |

# Cathedral Energy Services

## Survey Report

|                  |                            |                                     |                                     |
|------------------|----------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GMR 8-6A1                      |
| <b>Project:</b>  | Mamm Creek                 | <b>TVD Reference:</b>               | KBE @ 7848.0ft (Original Well Elev) |
| <b>Site:</b>     | NESW S8 T7S R93W (K8W Pad) | <b>MD Reference:</b>                | KBE @ 7848.0ft (Original Well Elev) |
| <b>Well:</b>     | GMR 8-6A1                  | <b>North Reference:</b>             | True                                |
| <b>Wellbore:</b> | Final                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | DD                         | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |

| Survey              |                 |             |                     |            |            |                       |                       |                      |                       |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Formations / Comments |
| 5,162.0             | 14.90           | 8.80        | 4,999.3             | 1,218.4    | 221.9      | 1,238.5               | 0.72                  | -0.31                |                       |
| 5,257.0             | 15.90           | 11.60       | 5,090.9             | 1,243.3    | 226.4      | 1,263.7               | 1.31                  | 1.05                 |                       |
| 5,352.0             | 15.60           | 10.50       | 5,182.3             | 1,268.6    | 231.4      | 1,289.5               | 0.45                  | -0.32                |                       |
| 5,447.0             | 15.80           | 12.20       | 5,273.8             | 1,293.8    | 236.4      | 1,315.2               | 0.53                  | 0.21                 |                       |
| 5,542.0             | 16.00           | 11.20       | 5,365.2             | 1,319.3    | 241.7      | 1,341.2               | 0.36                  | 0.21                 |                       |
| 5,637.0             | 15.80           | 9.40        | 5,456.5             | 1,344.9    | 246.4      | 1,367.2               | 0.56                  | -0.21                |                       |
| 5,733.0             | 15.40           | 10.20       | 5,549.0             | 1,370.3    | 250.8      | 1,393.1               | 0.47                  | -0.42                |                       |
| 5,829.0             | 15.10           | 13.20       | 5,641.6             | 1,395.0    | 255.9      | 1,418.3               | 0.88                  | -0.31                |                       |
| 5,924.0             | 15.10           | 11.80       | 5,733.3             | 1,419.2    | 261.2      | 1,443.0               | 0.38                  | 0.00                 |                       |
| 6,020.0             | 15.10           | 10.60       | 5,826.0             | 1,443.7    | 266.1      | 1,468.0               | 0.33                  | 0.00                 |                       |
| 6,115.0             | 14.90           | 7.50        | 5,917.8             | 1,468.0    | 270.0      | 1,492.6               | 0.87                  | -0.21                |                       |
| 6,210.0             | 13.70           | 9.00        | 6,009.8             | 1,491.2    | 273.3      | 1,516.0               | 1.32                  | -1.26                |                       |
| 6,306.0             | 13.80           | 10.62       | 6,103.1             | 1,513.7    | 277.2      | 1,538.9               | 0.41                  | 0.10                 |                       |
| 6,401.0             | 12.90           | 7.40        | 6,195.5             | 1,535.3    | 280.7      | 1,560.8               | 1.23                  | -0.95                |                       |
| 6,496.0             | 13.40           | 11.30       | 6,288.0             | 1,556.6    | 284.2      | 1,582.4               | 1.07                  | 0.53                 |                       |
| 6,592.0             | 13.50           | 11.00       | 6,381.4             | 1,578.6    | 288.5      | 1,604.7               | 0.13                  | 0.10                 |                       |
| 6,688.0             | 14.20           | 12.60       | 6,474.6             | 1,601.0    | 293.2      | 1,627.7               | 0.83                  | 0.73                 |                       |
| 6,783.0             | 13.10           | 11.70       | 6,566.9             | 1,623.0    | 297.9      | 1,650.1               | 1.18                  | -1.16                |                       |
| 6,876.0             | 13.40           | 15.30       | 6,657.4             | 1,643.7    | 302.9      | 1,671.4               | 0.94                  | 0.32                 |                       |
| 6,971.0             | 14.50           | 15.50       | 6,749.6             | 1,665.8    | 309.0      | 1,694.2               | 1.16                  | 1.16                 |                       |
| 7,067.0             | 13.50           | 10.70       | 6,842.8             | 1,688.3    | 314.3      | 1,717.3               | 1.60                  | -1.04                |                       |
| 7,162.0             | 13.50           | 4.90        | 6,935.2             | 1,710.3    | 317.3      | 1,739.5               | 1.42                  | 0.00                 |                       |
| 7,258.0             | 13.90           | 9.40        | 7,028.4             | 1,732.8    | 320.1      | 1,762.2               | 1.19                  | 0.42                 |                       |
| 7,353.0             | 12.80           | 7.90        | 7,120.9             | 1,754.5    | 323.4      | 1,784.1               | 1.21                  | -1.16                |                       |
| 7,449.0             | 12.00           | 7.40        | 7,214.6             | 1,774.9    | 326.2      | 1,804.7               | 0.84                  | -0.83                |                       |
| 7,544.0             | 9.90            | 9.00        | 7,307.9             | 1,792.8    | 328.7      | 1,822.7               | 2.23                  | -2.21                |                       |
| 7,639.0             | 9.10            | 6.60        | 7,401.6             | 1,808.3    | 330.9      | 1,838.4               | 0.94                  | -0.84                |                       |
| 7,735.0             | 7.20            | 10.00       | 7,496.6             | 1,821.8    | 332.8      | 1,852.0               | 2.04                  | -1.98                |                       |
| 7,831.0             | 6.50            | 12.60       | 7,591.9             | 1,833.0    | 335.0      | 1,863.4               | 0.80                  | -0.73                |                       |
| 7,926.0             | 5.10            | 9.00        | 7,686.4             | 1,842.5    | 336.9      | 1,873.0               | 1.52                  | -1.47                |                       |
| 8,021.0             | 4.80            | 3.20        | 7,781.1             | 1,850.6    | 337.7      | 1,881.2               | 0.61                  | -0.32                |                       |
| 8,117.0             | 3.20            | 28.60       | 7,876.9             | 1,857.0    | 339.2      | 1,887.7               | 2.45                  | -1.67                |                       |
| 8,212.0             | 2.00            | 353.70      | 7,971.8             | 1,860.9    | 340.3      | 1,891.8               | 2.04                  | -1.26                |                       |
| 8,307.0             | 0.40            | 343.80      | 8,066.7             | 1,862.9    | 340.1      | 1,893.7               | 1.69                  | -1.68                |                       |
| 8,402.0             | 0.90            | 326.50      | 8,161.7             | 1,863.8    | 339.6      | 1,894.5               | 0.56                  | 0.53                 |                       |
| 8,498.0             | 1.10            | 321.20      | 8,257.7             | 1,865.2    | 338.6      | 1,895.7               | 0.23                  | 0.21                 |                       |
| 8,593.0             | 0.50            | 292.10      | 8,352.7             | 1,866.0    | 337.6      | 1,896.3               | 0.74                  | -0.63                |                       |
| 8,688.0             | 0.70            | 269.80      | 8,447.7             | 1,866.2    | 336.6      | 1,896.3               | 0.32                  | 0.21                 |                       |
| 8,784.0             | 0.70            | 174.50      | 8,543.7             | 1,865.6    | 336.1      | 1,895.6               | 1.08                  | 0.00                 |                       |
| 8,879.0             | 0.60            | 183.10      | 8,638.7             | 1,864.5    | 336.1      | 1,894.6               | 0.15                  | -0.11                |                       |
| 8,974.0             | 0.90            | 200.90      | 8,733.7             | 1,863.3    | 335.8      | 1,893.4               | 0.40                  | 0.32                 |                       |
| 9,070.0             | 1.30            | 208.70      | 8,829.7             | 1,861.7    | 335.1      | 1,891.6               | 0.44                  | 0.42                 |                       |
| 9,163.0             | 0.80            | 153.30      | 8,922.7             | 1,860.2    | 334.8      | 1,890.1               | 1.15                  | -0.54                |                       |
| 9,258.0             | 0.20            | 312.70      | 9,017.7             | 1,859.7    | 335.0      | 1,889.6               | 1.04                  | -0.63                |                       |
| 9,354.0             | 0.60            | 221.00      | 9,113.7             | 1,859.4    | 334.6      | 1,889.3               | 0.66                  | 0.42                 |                       |
| 9,449.0             | 0.40            | 293.30      | 9,208.7             | 1,859.2    | 333.9      | 1,888.9               | 0.64                  | -0.21                |                       |
| 9,544.0             | 1.40            | 246.30      | 9,303.6             | 1,858.9    | 332.6      | 1,888.4               | 1.23                  | 1.05                 |                       |
| 9,638.0             | 1.10            | 262.50      | 9,397.6             | 1,858.3    | 330.6      | 1,887.4               | 0.49                  | -0.32                |                       |
| 9,733.0             | 1.90            | 199.70      | 9,492.6             | 1,856.7    | 329.2      | 1,885.6               | 1.80                  | 0.84                 |                       |
| 9,828.0             | 1.60            | 144.90      | 9,587.6             | 1,854.1    | 329.4      | 1,883.1               | 1.72                  | -0.32                |                       |
| 9,924.0             | 1.90            | 169.20      | 9,683.5             | 1,851.5    | 330.5      | 1,880.7               | 0.83                  | 0.31                 |                       |
| 10,019.0            | 2.70            | 192.70      | 9,778.4             | 1,847.7    | 330.3      | 1,877.0               | 1.29                  | 0.84                 |                       |
| 10,114.0            | 2.90            | 186.40      | 9,873.3             | 1,843.1    | 329.5      | 1,872.4               | 0.39                  | 0.21                 |                       |

# Cathedral Energy Services

## Survey Report

|                  |                            |                                     |                                     |
|------------------|----------------------------|-------------------------------------|-------------------------------------|
| <b>Company:</b>  | EnCana Oil & Gas (USA) Inc | <b>Local Co-ordinate Reference:</b> | Well GMR 8-6A1                      |
| <b>Project:</b>  | Mamm Creek                 | <b>TVD Reference:</b>               | KBE @ 7848.0ft (Original Well Elev) |
| <b>Site:</b>     | NESW S8 T7S R93W (K8W Pad) | <b>MD Reference:</b>                | KBE @ 7848.0ft (Original Well Elev) |
| <b>Well:</b>     | GMR 8-6A1                  | <b>North Reference:</b>             | True                                |
| <b>Wellbore:</b> | Final                      | <b>Survey Calculation Method:</b>   | Minimum Curvature                   |
| <b>Design:</b>   | DD                         | <b>Database:</b>                    | EDM 5000.1 US Multi Users DB        |

| Survey              |                 |             |                     |            |            |                       |                       |                      |                       |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Formations / Comments |
| 10,155.0            | 2.80            | 184.60      | 9,914.3             | 1,841.1    | 329.3      | 1,870.3               | 0.33                  | -0.24                |                       |
| 10,210.0            | 2.80            | 184.60      | 9,969.2             | 1,838.4    | 329.1      | 1,867.7               | 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   |
| GMR 8-6A1 TOG   | 0.00          | 0.00         | 7,876.0  | 1,849.5    | 339.6      | 1,601,849.53  | 2,351,090.90 | 39.463300 | -107.798656 |
| - hit/miss target   |               |              |          |            |            |               |              |           |             |
| - Shape   |               |              |          |            |            |               |              |           |             |
| - survey misses target center by 7.4ft at 8115.7ft MD (7875.5 TVD, 1856.9 N, 339.2 E)   |               |              |          |            |            |               |              |           |             |
| - Point   |               |              |          |            |            |               |              |           |             |
| Hardline 40' East   | 0.00          | 0.00         | -9,899.0 | 1,485.3    | 360.8      | 1,601,484.85  | 2,351,102.85 | 39.462300 | -107.798581 |
| - survey misses target center by 10016.3ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)          |               |              |          |            |            |               |              |           |             |
| - Polygon   |               |              |          |            |            |               |              |           |             |
| Point 1   |               |              | -9,899.0 | 40.0       | 40.0       | 1,601,523.82  | 2,351,143.85 |           |             |
| Point 2   |               |              | -9,899.0 | -100.0     | 40.0       | 1,601,383.87  | 2,351,140.31 |           |             |
| Hardline 40' North  | 0.00          | 0.00         | -9,954.0 | 1,820.1    | -1,963.8   | 1,601,878.42  | 2,348,787.50 | 39.463219 | -107.806814 |
| - survey misses target center by 10307.8ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)          |               |              |          |            |            |               |              |           |             |
| - Polygon   |               |              |          |            |            |               |              |           |             |
| Point 1   |               |              | -9,954.0 | 40.0       | -60.0      | 1,601,919.92  | 2,348,728.53 |           |             |
| Point 2   |               |              | -9,954.0 | 40.0       | 40.0       | 1,601,917.39  | 2,348,828.50 |           |             |
| GMR 8-6A1 BHL   | 0.00          | 0.00         | 9,954.0  | 1,849.5    | 339.6      | 1,601,849.53  | 2,351,090.90 | 39.463300 | -107.798656 |
| - survey misses target center by 14.7ft at 10194.2ft MD (9953.5 TVD, 1839.2 N, 329.2 E) |               |              |          |            |            |               |              |           |             |
| - Circle (radius 25.0)  |               |              |          |            |            |               |              |           |             |

| Survey Annotations  |                     |                   |            |                                    |  |
|---------------------|---------------------|-------------------|------------|------------------------------------|--|
| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates |            |                                    |  |
|                     |                     | +N/-S (ft)        | +E/-W (ft) | Comment                            |  |
| 10,155.0            | 9,914.3             | 1,841.1           | 329.3      | Last Cathedral Survey @ 10,155' MD |  |
| 10,210.0            | 9,969.2             | 1,838.4           | 329.1      | Projection to bit @ 10,210' MD     |  |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_