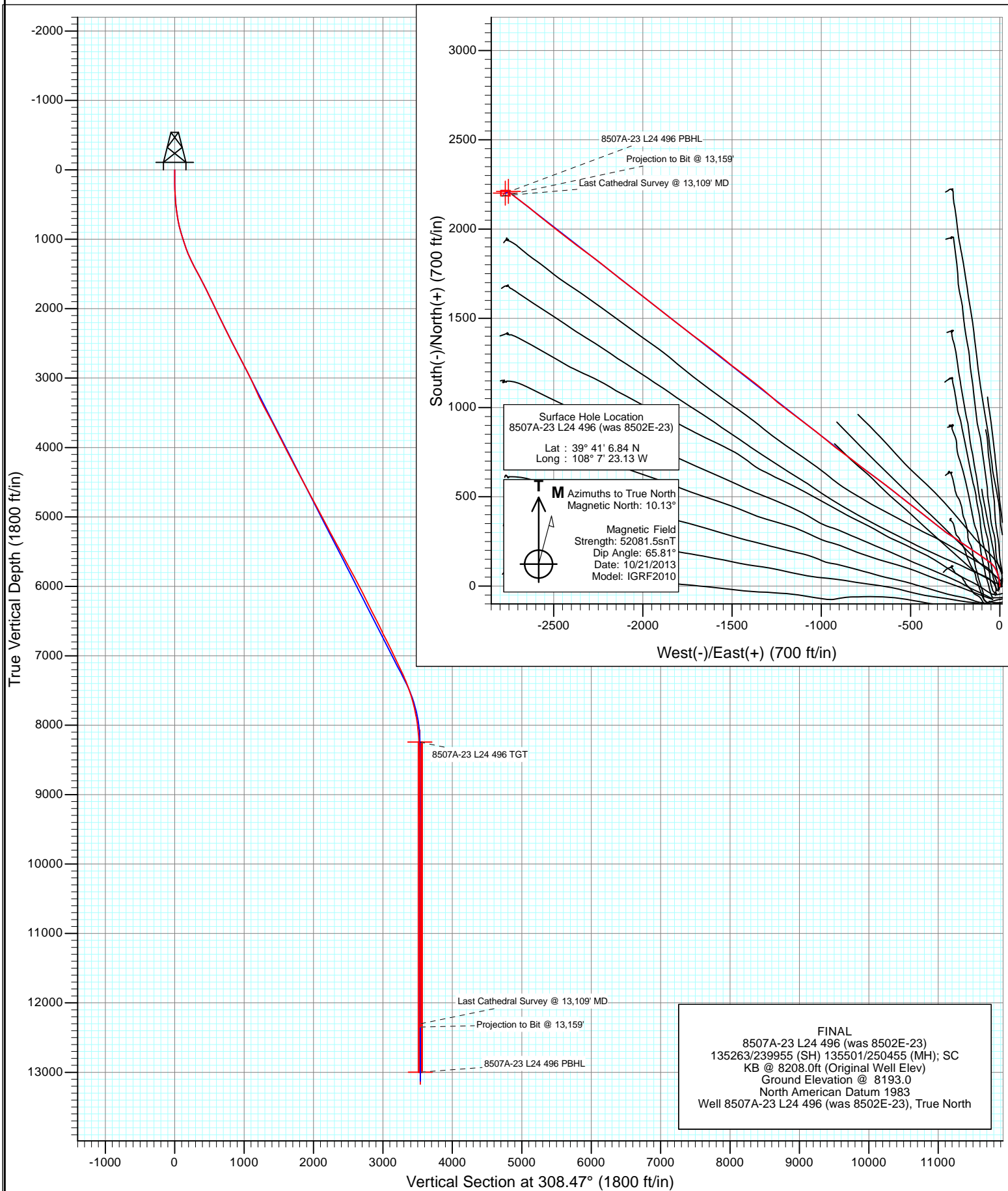
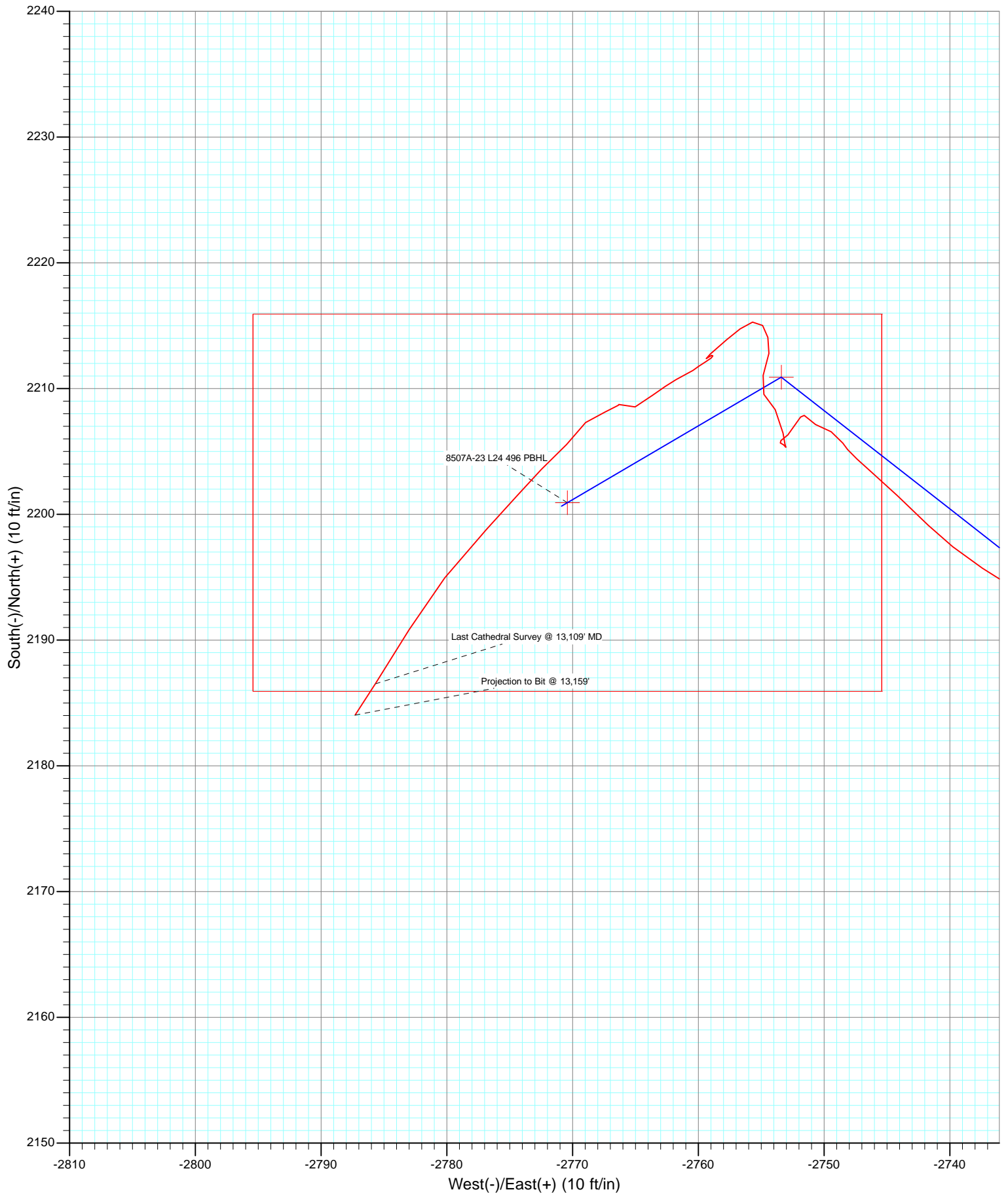




Project: Story Gulch
Site: L24 496
Well: 8507A-23 L24 496 (was 8502E-23)
Wellbore: DD
Design: FINAL





Cathedral Energy Services

Survey Report

| | | | |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well 8507A-23 L24 496 (was 8502E-23) |
| Project: | Story Gulch | TVD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Site: | L24 496 | MD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Well: | 8507A-23 L24 496 (was 8502E-23) | North Reference: | True |
| Wellbore: | DD | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL | Database: | USA EDM 5000 Multi Users DB |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | Story Gulch | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Central Zone | | |

| | | | | |
|------------------------------|----------|---------------------|-----------------|-----------------------------------|
| Site | L24 496 | | | |
| Site Position: | | Northing: | 1,685,024.52 ft | Latitude: 39° 41' 5.72 N |
| From: | Lat/Long | Easting: | 2,261,789.15 ft | Longitude: 108° 7' 23.99 W |
| Position Uncertainty: | 0.0 ft | Slot Radius: | 13.200 in | Grid Convergence: -1.65 ° |

| | | | | |
|-----------------------------|---------------------------------|--------|----------------------------|-----------------|
| Well | 8507A-23 L24 496 (was 8502E-23) | | | |
| Well Position | +N/-S | 0.0 ft | Northing: | 1,685,135.84 ft |
| | +E/-W | 0.0 ft | Easting: | 2,261,859.63 ft |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft |
| | | | Ground Level: | 8,193.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | DD | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 10/21/2013 | 10.13 | 65.81 | 52,082 |

| | | | | |
|--------------------------|-------------------------|-------------------|-------------------|--------------------------|
| Design | FINAL | | | |
| Audit Notes: | | | | |
| Version: | 1.0 | Phase: | ACTUAL | Tie On Depth: 0.0 |
| Vertical Section: | Depth From (TVD) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 308.47 |

| | | | | |
|-----------------------|----------------|--------------------------|------------------|--------------------|
| Survey Program | Date | 11/5/2013 | | |
| From (ft) | To (ft) | Survey (Wellbore) | Tool Name | Description |
| 106.0 | 13,159.0 | Survey #1 (DD) | Geolink MWD | Geolink MWD |

| | | | | | | | | | |
|----------------------------|------------------------|--------------------|----------------------------|-------------------|-------------------|------------------------------|------------------------------|-----------------------------|------------------------------|
| 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 |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 106.0 | 0.90 | 173.70 | 106.0 | -0.8 | 0.1 | -0.6 | 0.85 | 0.85 | |
| 137.0 | 0.60 | 42.70 | 137.0 | -1.0 | 0.2 | -0.8 | 4.42 | -0.97 | |
| 167.0 | 0.40 | 340.70 | 167.0 | -0.7 | 0.3 | -0.7 | 1.81 | -0.67 | |
| 197.0 | 1.30 | 356.30 | 197.0 | -0.3 | 0.2 | -0.4 | 3.07 | 3.00 | |
| 228.0 | 1.80 | 352.60 | 228.0 | 0.5 | 0.2 | 0.2 | 1.64 | 1.61 | |
| 259.0 | 2.60 | 347.60 | 259.0 | 1.7 | -0.1 | 1.1 | 2.65 | 2.58 | |
| 290.0 | 2.70 | 356.30 | 289.9 | 3.1 | -0.3 | 2.1 | 1.34 | 0.32 | |
| 320.0 | 3.70 | 3.10 | 319.9 | 4.8 | -0.2 | 3.2 | 3.56 | 3.33 | |
| 350.0 | 4.40 | 358.50 | 349.8 | 6.9 | -0.2 | 4.5 | 2.57 | 2.33 | |
| 381.0 | 5.40 | 359.80 | 380.7 | 9.6 | -0.3 | 6.1 | 3.25 | 3.23 | |
| 411.0 | 5.90 | 358.90 | 410.5 | 12.5 | -0.3 | 8.0 | 1.69 | 1.67 | |
| 441.0 | 6.40 | 349.10 | 440.4 | 15.7 | -0.6 | 10.3 | 3.87 | 1.67 | |

Cathedral Energy Services

Survey Report

| | | | |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well 8507A-23 L24 496 (was 8502E-23) |
| Project: | Story Gulch | TVD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Site: | L24 496 | MD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Well: | 8507A-23 L24 496 (was 8502E-23) | North Reference: | True |
| Wellbore: | DD | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL | Database: | USA EDM 5000 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 |
| 472.0 | 6.50 | 346.00 | 471.2 | 19.1 | -1.4 | 13.0 | 1.17 | 0.32 | |
| 502.0 | 7.30 | 346.70 | 501.0 | 22.6 | -2.2 | 15.8 | 2.68 | 2.67 | |
| 532.0 | 8.10 | 347.70 | 530.7 | 26.5 | -3.1 | 18.9 | 2.70 | 2.67 | |
| 565.0 | 9.00 | 348.80 | 563.3 | 31.3 | -4.1 | 22.7 | 2.77 | 2.73 | |
| 611.0 | 9.80 | 348.70 | 608.7 | 38.7 | -5.6 | 28.4 | 1.74 | 1.74 | |
| 657.0 | 11.30 | 348.90 | 653.9 | 46.9 | -7.2 | 34.9 | 3.26 | 3.26 | |
| 703.0 | 12.40 | 348.20 | 698.9 | 56.2 | -9.1 | 42.1 | 2.41 | 2.39 | |
| 749.0 | 13.80 | 344.20 | 743.7 | 66.3 | -11.6 | 50.3 | 3.62 | 3.04 | |
| 795.0 | 14.80 | 339.20 | 788.3 | 77.1 | -15.2 | 59.8 | 3.45 | 2.17 | |
| 841.0 | 15.80 | 334.80 | 832.7 | 88.3 | -19.9 | 70.5 | 3.33 | 2.17 | |
| 887.0 | 16.30 | 328.90 | 876.9 | 99.4 | -25.9 | 82.2 | 3.71 | 1.09 | |
| 932.0 | 17.20 | 322.80 | 920.0 | 110.2 | -33.2 | 94.5 | 4.39 | 2.00 | |
| 978.0 | 17.60 | 316.90 | 963.9 | 120.7 | -42.1 | 108.0 | 3.93 | 0.87 | |
| 1,024.0 | 17.40 | 310.50 | 1,007.8 | 130.2 | -52.1 | 121.8 | 4.20 | -0.43 | |
| 1,070.0 | 18.10 | 306.00 | 1,051.6 | 138.9 | -63.1 | 135.8 | 3.35 | 1.52 | |
| 1,116.0 | 19.10 | 305.00 | 1,095.2 | 147.4 | -75.0 | 150.4 | 2.28 | 2.17 | |
| 1,162.0 | 20.40 | 305.50 | 1,138.5 | 156.4 | -87.7 | 165.9 | 2.85 | 2.83 | |
| 1,208.0 | 21.60 | 305.10 | 1,181.4 | 165.9 | -101.2 | 182.4 | 2.63 | 2.61 | |
| 1,254.0 | 23.10 | 304.50 | 1,224.0 | 175.9 | -115.5 | 199.9 | 3.30 | 3.26 | |
| 1,346.0 | 25.80 | 303.30 | 1,307.7 | 197.1 | -147.2 | 237.8 | 2.98 | 2.93 | |
| 1,438.0 | 27.30 | 304.10 | 1,390.0 | 219.9 | -181.4 | 278.8 | 1.68 | 1.63 | |
| 1,530.0 | 28.30 | 305.50 | 1,471.4 | 244.4 | -216.6 | 321.6 | 1.30 | 1.09 | |
| 1,622.0 | 28.70 | 302.90 | 1,552.2 | 269.1 | -252.9 | 365.4 | 1.42 | 0.43 | |
| 1,713.0 | 27.30 | 303.50 | 1,632.6 | 292.4 | -288.6 | 407.9 | 1.57 | -1.54 | |
| 1,805.0 | 25.90 | 307.60 | 1,714.8 | 316.4 | -322.2 | 449.0 | 2.51 | -1.52 | |
| 1,897.0 | 25.70 | 309.50 | 1,797.7 | 341.3 | -353.5 | 489.1 | 0.92 | -0.22 | |
| 1,989.0 | 25.80 | 309.90 | 1,880.5 | 366.8 | -384.2 | 529.0 | 0.22 | 0.11 | |
| 2,081.0 | 26.00 | 308.00 | 1,963.3 | 392.1 | -415.5 | 569.2 | 0.93 | 0.22 | |
| 2,173.0 | 26.30 | 306.30 | 2,045.9 | 416.6 | -447.8 | 609.7 | 0.88 | 0.33 | |
| 2,264.0 | 25.50 | 306.50 | 2,127.7 | 440.2 | -479.8 | 649.5 | 0.88 | -0.88 | |
| 2,356.0 | 25.40 | 308.00 | 2,210.8 | 464.1 | -511.3 | 689.0 | 0.71 | -0.11 | |
| 2,448.0 | 26.10 | 308.30 | 2,293.7 | 488.8 | -542.7 | 729.0 | 0.77 | 0.76 | |
| 2,540.0 | 26.60 | 310.00 | 2,376.1 | 514.6 | -574.3 | 769.8 | 0.98 | 0.54 | |
| 2,632.0 | 26.30 | 307.80 | 2,458.5 | 540.3 | -606.2 | 810.7 | 1.11 | -0.33 | |
| 2,724.0 | 27.60 | 306.40 | 2,540.5 | 565.4 | -639.5 | 852.4 | 1.57 | 1.41 | |
| 2,816.0 | 27.90 | 307.00 | 2,621.9 | 591.0 | -673.8 | 895.2 | 0.45 | 0.33 | |
| 2,908.0 | 28.00 | 306.50 | 2,703.2 | 616.8 | -708.4 | 938.3 | 0.28 | 0.11 | |
| 2,999.0 | 27.10 | 306.50 | 2,783.9 | 641.9 | -742.2 | 980.4 | 0.99 | -0.99 | |
| 3,090.0 | 27.70 | 307.60 | 2,864.7 | 667.1 | -775.6 | 1,022.3 | 0.86 | 0.66 | |
| 3,182.0 | 27.20 | 308.00 | 2,946.3 | 693.1 | -809.1 | 1,064.7 | 0.58 | -0.54 | |
| 3,243.0 | 26.30 | 307.50 | 3,000.8 | 709.9 | -830.9 | 1,092.1 | 1.52 | -1.48 | |
| 3,365.0 | 22.90 | 305.00 | 3,111.7 | 740.0 | -871.8 | 1,142.9 | 2.91 | -2.79 | |
| 3,457.0 | 24.80 | 308.00 | 3,195.8 | 762.1 | -901.6 | 1,180.0 | 2.45 | 2.07 | |
| 3,549.0 | 25.20 | 308.40 | 3,279.2 | 786.2 | -932.2 | 1,218.9 | 0.47 | 0.43 | |
| 3,641.0 | 27.20 | 309.10 | 3,361.8 | 811.6 | -963.8 | 1,259.5 | 2.20 | 2.17 | |
| 3,732.0 | 28.90 | 309.30 | 3,442.1 | 838.6 | -997.0 | 1,302.3 | 1.87 | 1.87 | |
| 3,824.0 | 28.20 | 309.00 | 3,522.9 | 866.4 | -1,031.1 | 1,346.3 | 0.78 | -0.76 | |
| 3,916.0 | 26.70 | 306.40 | 3,604.5 | 892.4 | -1,064.6 | 1,388.7 | 2.09 | -1.63 | |
| 4,008.0 | 26.70 | 305.80 | 3,686.7 | 916.7 | -1,098.0 | 1,430.0 | 0.29 | 0.00 | |
| 4,100.0 | 27.20 | 308.10 | 3,768.7 | 941.8 | -1,131.3 | 1,471.7 | 1.26 | 0.54 | |
| 4,192.0 | 28.80 | 308.30 | 3,849.9 | 968.5 | -1,165.3 | 1,514.8 | 1.74 | 1.74 | |
| 4,284.0 | 27.00 | 305.90 | 3,931.3 | 994.5 | -1,199.6 | 1,557.9 | 2.31 | -1.96 | |
| 4,376.0 | 25.50 | 308.60 | 4,013.8 | 1,019.1 | -1,232.0 | 1,598.5 | 2.08 | -1.63 | |

Cathedral Energy Services

Survey Report

| | | | |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well 8507A-23 L24 496 (was 8502E-23) |
| Project: | Story Gulch | TVD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Site: | L24 496 | MD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Well: | 8507A-23 L24 496 (was 8502E-23) | North Reference: | True |
| Wellbore: | DD | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL | Database: | USA EDM 5000 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 |
| 4,467.0 | 26.90 | 311.80 | 4,095.4 | 1,045.0 | -1,262.7 | 1,638.7 | 2.19 | 1.54 | |
| 4,559.0 | 27.30 | 311.40 | 4,177.3 | 1,072.8 | -1,294.0 | 1,680.5 | 0.48 | 0.43 | |
| 4,651.0 | 28.80 | 309.20 | 4,258.5 | 1,100.8 | -1,327.0 | 1,723.8 | 1.98 | 1.63 | |
| 4,743.0 | 29.00 | 307.90 | 4,339.1 | 1,128.5 | -1,361.8 | 1,768.2 | 0.72 | 0.22 | |
| 4,835.0 | 27.90 | 307.80 | 4,419.9 | 1,155.4 | -1,396.4 | 1,812.0 | 1.20 | -1.20 | |
| 4,927.0 | 28.90 | 308.00 | 4,500.9 | 1,182.3 | -1,430.9 | 1,855.8 | 1.09 | 1.09 | |
| 5,019.0 | 27.60 | 305.70 | 4,581.9 | 1,208.4 | -1,465.7 | 1,899.3 | 1.84 | -1.41 | |
| 5,111.0 | 27.30 | 308.10 | 4,663.6 | 1,233.9 | -1,499.6 | 1,941.7 | 1.25 | -0.33 | |
| 5,203.0 | 27.70 | 310.10 | 4,745.2 | 1,260.7 | -1,532.6 | 1,984.2 | 1.09 | 0.43 | |
| 5,295.0 | 29.60 | 308.30 | 4,825.9 | 1,288.5 | -1,566.8 | 2,028.3 | 2.27 | 2.07 | |
| 5,386.0 | 28.70 | 308.00 | 4,905.4 | 1,315.9 | -1,601.6 | 2,072.6 | 1.00 | -0.99 | |
| 5,478.0 | 27.20 | 306.50 | 4,986.6 | 1,342.0 | -1,636.0 | 2,115.7 | 1.80 | -1.63 | |
| 5,570.0 | 28.50 | 307.50 | 5,068.0 | 1,367.9 | -1,670.3 | 2,158.7 | 1.50 | 1.41 | |
| 5,662.0 | 27.40 | 305.80 | 5,149.2 | 1,393.6 | -1,704.9 | 2,201.8 | 1.48 | -1.20 | |
| 5,754.0 | 28.60 | 307.40 | 5,230.5 | 1,419.4 | -1,739.5 | 2,244.9 | 1.54 | 1.30 | |
| 5,845.0 | 27.20 | 306.60 | 5,310.9 | 1,445.0 | -1,773.5 | 2,287.5 | 1.59 | -1.54 | |
| 5,937.0 | 29.20 | 309.30 | 5,392.0 | 1,471.8 | -1,807.8 | 2,331.0 | 2.58 | 2.17 | |
| 6,029.0 | 28.00 | 307.60 | 5,472.8 | 1,499.2 | -1,842.3 | 2,375.0 | 1.58 | -1.30 | |
| 6,121.0 | 28.00 | 308.90 | 5,554.0 | 1,525.9 | -1,876.2 | 2,418.2 | 0.66 | 0.00 | |
| 6,213.0 | 29.10 | 308.30 | 5,634.8 | 1,553.3 | -1,910.5 | 2,462.1 | 1.24 | 1.20 | |
| 6,305.0 | 27.90 | 306.80 | 5,715.6 | 1,580.1 | -1,945.3 | 2,506.0 | 1.52 | -1.30 | |
| 6,396.0 | 29.00 | 308.80 | 5,795.7 | 1,606.7 | -1,979.6 | 2,549.4 | 1.60 | 1.21 | |
| 6,488.0 | 27.80 | 307.10 | 5,876.6 | 1,633.6 | -2,014.1 | 2,593.1 | 1.57 | -1.30 | |
| 6,580.0 | 28.30 | 308.70 | 5,957.8 | 1,660.2 | -2,048.2 | 2,636.4 | 0.98 | 0.54 | |
| 6,671.0 | 27.60 | 307.80 | 6,038.2 | 1,686.6 | -2,081.7 | 2,679.0 | 0.90 | -0.77 | |
| 6,763.0 | 25.40 | 306.30 | 6,120.5 | 1,711.3 | -2,114.4 | 2,720.1 | 2.50 | -2.39 | |
| 6,855.0 | 26.70 | 309.40 | 6,203.2 | 1,736.1 | -2,146.3 | 2,760.5 | 2.05 | 1.41 | |
| 6,947.0 | 26.90 | 308.60 | 6,285.3 | 1,762.2 | -2,178.5 | 2,801.9 | 0.45 | 0.22 | |
| 7,039.0 | 27.90 | 309.00 | 6,366.9 | 1,788.7 | -2,211.5 | 2,844.3 | 1.11 | 1.09 | |
| 7,131.0 | 26.10 | 307.60 | 6,448.9 | 1,814.6 | -2,244.3 | 2,886.0 | 2.07 | -1.96 | |
| 7,223.0 | 27.20 | 307.50 | 6,531.1 | 1,839.8 | -2,277.0 | 2,927.3 | 1.20 | 1.20 | |
| 7,314.0 | 25.50 | 305.30 | 6,612.7 | 1,863.8 | -2,309.5 | 2,967.7 | 2.15 | -1.87 | |
| 7,406.0 | 26.50 | 306.20 | 6,695.4 | 1,887.3 | -2,342.2 | 3,007.9 | 1.17 | 1.09 | |
| 7,498.0 | 27.60 | 308.30 | 6,777.3 | 1,912.7 | -2,375.5 | 3,049.8 | 1.58 | 1.20 | |
| 7,590.0 | 26.30 | 306.30 | 6,859.3 | 1,937.9 | -2,408.7 | 3,091.4 | 1.72 | -1.41 | |
| 7,682.0 | 25.90 | 309.70 | 6,941.9 | 1,962.8 | -2,440.6 | 3,131.9 | 1.68 | -0.43 | |
| 7,774.0 | 24.90 | 307.40 | 7,025.1 | 1,987.4 | -2,471.4 | 3,171.4 | 1.53 | -1.09 | |
| 7,866.0 | 25.80 | 308.30 | 7,108.2 | 2,011.6 | -2,502.5 | 3,210.7 | 1.06 | 0.98 | |
| 7,957.0 | 25.40 | 308.80 | 7,190.3 | 2,036.1 | -2,533.3 | 3,250.1 | 0.50 | -0.44 | |
| 8,049.0 | 24.90 | 307.90 | 7,273.5 | 2,060.4 | -2,563.9 | 3,289.2 | 0.68 | -0.54 | |
| 8,141.0 | 22.50 | 309.80 | 7,357.8 | 2,083.6 | -2,592.7 | 3,326.1 | 2.74 | -2.61 | |
| 8,233.0 | 19.90 | 309.30 | 7,443.5 | 2,104.7 | -2,618.4 | 3,359.4 | 2.83 | -2.83 | |
| 8,325.0 | 18.50 | 309.90 | 7,530.4 | 2,124.0 | -2,641.7 | 3,389.6 | 1.54 | -1.52 | |
| 8,417.0 | 16.00 | 306.30 | 7,618.3 | 2,140.9 | -2,663.1 | 3,416.9 | 2.95 | -2.72 | |
| 8,509.0 | 13.90 | 305.80 | 7,707.2 | 2,154.9 | -2,682.3 | 3,440.6 | 2.29 | -2.28 | |
| 8,601.0 | 12.60 | 308.70 | 7,796.7 | 2,167.6 | -2,699.1 | 3,461.7 | 1.59 | -1.41 | |
| 8,693.0 | 10.50 | 304.90 | 7,886.8 | 2,178.7 | -2,713.8 | 3,480.1 | 2.43 | -2.28 | |
| 8,785.0 | 7.70 | 309.90 | 7,977.7 | 2,187.4 | -2,725.4 | 3,494.6 | 3.16 | -3.04 | |
| 8,877.0 | 6.50 | 300.10 | 8,069.0 | 2,194.0 | -2,734.6 | 3,505.9 | 1.85 | -1.30 | |
| 8,968.0 | 4.60 | 314.40 | 8,159.5 | 2,199.1 | -2,741.7 | 3,514.7 | 2.57 | -2.09 | |
| 9,060.0 | 3.20 | 311.20 | 8,251.3 | 2,203.4 | -2,746.3 | 3,520.9 | 1.54 | -1.52 | |
| 9,152.0 | 0.80 | 332.60 | 8,343.3 | 2,205.7 | -2,748.5 | 3,524.0 | 2.69 | -2.61 | |
| 9,244.0 | 0.90 | 297.60 | 8,435.3 | 2,206.6 | -2,749.4 | 3,525.3 | 0.57 | 0.11 | |

Cathedral Energy Services

Survey Report

| | | | |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well 8507A-23 L24 496 (was 8502E-23) |
| Project: | Story Gulch | TVD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Site: | L24 496 | MD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Well: | 8507A-23 L24 496 (was 8502E-23) | North Reference: | True |
| Wellbore: | DD | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL | Database: | USA EDM 5000 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 |
| 9,336.0 | 0.80 | 292.50 | 8,527.3 | 2,207.1 | -2,750.7 | 3,526.7 | 0.14 | -0.11 | |
| 9,428.0 | 0.70 | 326.50 | 8,619.2 | 2,207.9 | -2,751.6 | 3,527.8 | 0.49 | -0.11 | |
| 9,465.0 | 1.10 | 208.00 | 8,656.2 | 2,207.7 | -2,751.9 | 3,528.0 | 4.22 | 1.08 | |
| 9,612.0 | 0.30 | 242.80 | 8,803.2 | 2,206.3 | -2,752.9 | 3,527.9 | 0.59 | -0.54 | |
| 9,704.0 | 0.60 | 224.30 | 8,895.2 | 2,205.9 | -2,753.4 | 3,528.0 | 0.36 | 0.33 | |
| 9,741.0 | 0.30 | 118.90 | 8,932.2 | 2,205.7 | -2,753.5 | 3,527.9 | 2.00 | -0.81 | |
| 9,796.0 | 0.30 | 118.90 | 8,987.2 | 2,205.5 | -2,753.2 | 3,527.7 | 0.00 | 0.00 | |
| 9,894.0 | 0.10 | 207.30 | 9,085.2 | 2,205.3 | -2,753.0 | 3,527.4 | 0.32 | -0.20 | |
| 9,986.0 | 1.50 | 351.10 | 9,177.2 | 2,206.5 | -2,753.3 | 3,528.3 | 1.72 | 1.52 | |
| 10,078.0 | 1.00 | 327.10 | 9,269.2 | 2,208.3 | -2,753.9 | 3,529.9 | 0.78 | -0.54 | |
| 10,170.0 | 0.90 | 319.20 | 9,361.2 | 2,209.5 | -2,754.8 | 3,531.4 | 0.18 | -0.11 | |
| 10,262.0 | 1.30 | 23.30 | 9,453.2 | 2,211.0 | -2,754.8 | 3,532.4 | 1.32 | 0.43 | |
| 10,354.0 | 1.00 | 3.80 | 9,545.1 | 2,212.8 | -2,754.4 | 3,533.1 | 0.53 | -0.33 | |
| 10,446.0 | 0.60 | 343.30 | 9,637.1 | 2,214.1 | -2,754.5 | 3,533.9 | 0.53 | -0.43 | |
| 10,538.0 | 0.70 | 330.30 | 9,729.1 | 2,215.0 | -2,754.9 | 3,534.9 | 0.19 | 0.11 | |
| 10,630.0 | 0.70 | 247.30 | 9,821.1 | 2,215.3 | -2,755.7 | 3,535.7 | 1.01 | 0.00 | |
| 10,722.0 | 0.70 | 235.10 | 9,913.1 | 2,214.8 | -2,756.7 | 3,536.1 | 0.16 | 0.00 | |
| 10,814.0 | 1.00 | 229.20 | 10,005.1 | 2,213.9 | -2,757.7 | 3,536.4 | 0.34 | 0.33 | |
| 10,905.0 | 1.20 | 228.40 | 10,096.1 | 2,212.8 | -2,759.0 | 3,536.7 | 0.22 | 0.22 | |
| 10,997.0 | 0.60 | 55.30 | 10,188.1 | 2,212.4 | -2,759.4 | 3,536.7 | 1.95 | -0.65 | |
| 11,089.0 | 0.04 | 113.00 | 10,280.1 | 2,212.6 | -2,758.9 | 3,536.6 | 0.63 | -0.61 | |
| 11,181.0 | 0.10 | 116.00 | 10,372.1 | 2,212.6 | -2,758.8 | 3,536.5 | 0.07 | 0.07 | |
| 11,273.0 | 0.30 | 236.30 | 10,464.1 | 2,212.4 | -2,759.0 | 3,536.5 | 0.39 | 0.22 | |
| 11,365.0 | 0.40 | 235.00 | 10,556.1 | 2,212.1 | -2,759.4 | 3,536.6 | 0.11 | 0.11 | |
| 11,457.0 | 0.40 | 239.00 | 10,648.1 | 2,211.8 | -2,760.0 | 3,536.8 | 0.03 | 0.00 | |
| 11,549.0 | 0.30 | 229.00 | 10,740.1 | 2,211.4 | -2,760.4 | 3,537.0 | 0.13 | -0.11 | |
| 11,641.0 | 0.40 | 250.20 | 10,832.1 | 2,211.2 | -2,760.9 | 3,537.2 | 0.18 | 0.11 | |
| 11,733.0 | 0.80 | 237.10 | 10,924.1 | 2,210.7 | -2,761.8 | 3,537.6 | 0.46 | 0.43 | |
| 11,825.0 | 0.50 | 239.20 | 11,016.1 | 2,210.2 | -2,762.6 | 3,537.9 | 0.33 | -0.33 | |
| 11,917.0 | 1.00 | 233.20 | 11,108.1 | 2,209.5 | -2,763.6 | 3,538.3 | 0.55 | 0.54 | |
| 12,009.0 | 1.10 | 239.10 | 11,200.0 | 2,208.5 | -2,765.0 | 3,538.8 | 0.16 | 0.11 | |
| 12,193.0 | 0.70 | 11.80 | 11,384.0 | 2,208.7 | -2,766.3 | 3,539.9 | 0.90 | -0.22 | |
| 12,284.0 | 0.80 | 195.50 | 11,475.0 | 2,208.7 | -2,766.4 | 3,539.9 | 1.65 | 0.11 | |
| 12,376.0 | 1.10 | 275.50 | 11,567.0 | 2,208.1 | -2,767.4 | 3,540.4 | 1.35 | 0.33 | |
| 12,468.0 | 1.40 | 216.10 | 11,659.0 | 2,207.3 | -2,769.0 | 3,541.1 | 1.38 | 0.33 | |
| 12,560.0 | 1.50 | 225.40 | 11,751.0 | 2,205.6 | -2,770.5 | 3,541.2 | 0.28 | 0.11 | |
| 12,652.0 | 2.00 | 225.10 | 11,842.9 | 2,203.6 | -2,772.5 | 3,541.5 | 0.54 | 0.54 | |
| 12,744.0 | 1.50 | 219.60 | 11,934.9 | 2,201.5 | -2,774.4 | 3,541.7 | 0.57 | -0.54 | |
| 12,836.0 | 3.10 | 223.40 | 12,026.8 | 2,198.8 | -2,776.9 | 3,542.0 | 1.75 | 1.74 | |
| 12,928.0 | 3.20 | 218.30 | 12,118.7 | 2,195.0 | -2,780.2 | 3,542.2 | 0.32 | 0.11 | |
| 13,019.0 | 3.10 | 210.70 | 12,209.5 | 2,190.8 | -2,783.0 | 3,541.8 | 0.47 | -0.11 | |
| 13,109.0 | 3.40 | 213.00 | 12,299.4 | 2,186.5 | -2,785.7 | 3,541.3 | 0.36 | 0.33 | Last Cathedral Survey @ 13,109' MD |
| 13,159.0 | 3.40 | 213.00 | 12,349.3 | 2,184.0 | -2,787.3 | 3,541.0 | 0.00 | 0.00 | Projection to Bit @ 13,159' |

Cathedral Energy Services

Survey Report

| | | | |
|------------------|---------------------------------|-------------------------------------|--------------------------------------|
| Company: | EnCana Oil & Gas (USA) Inc | Local Co-ordinate Reference: | Well 8507A-23 L24 496 (was 8502E-23) |
| Project: | Story Gulch | TVD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Site: | L24 496 | MD Reference: | KB @ 8208.0ft (Original Well Elev) |
| Well: | 8507A-23 L24 496 (was 8502E-23) | North Reference: | True |
| Wellbore: | DD | Survey Calculation Method: | Minimum Curvature |
| Design: | FINAL | Database: | USA EDM 5000 Multi Users DB |

| Targets | | | | | | | | | |
|--|-----------|----------|----------|---------|----------|--------------|--------------|-----------------|-----------------|
| Target Name | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - hit/miss target | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (ft) | | |
| - Shape | | | | | | | | | |
| 8507A-23 L24 496 TGT | 0.00 | 0.00 | 8,242.0 | 2,210.9 | -2,753.4 | 1,687,425.32 | 2,259,171.21 | 39° 41' 28.69 N | 108° 7' 58.35 W |
| - actual wellpath misses target center by 10.9ft at 9051.4ft MD (8242.7 TVD, 2203.1 N, -2745.9 E) | | | | | | | | | |
| - Point | | | | | | | | | |
| 8507A-23 L24 496 PBHI | 0.00 | 0.00 | 12,998.0 | 2,200.9 | -2,770.4 | 1,687,415.83 | 2,259,153.92 | 39° 41' 28.59 N | 108° 7' 58.57 W |
| - actual wellpath misses target center by 649.1ft at 13159.0ft MD (12349.3 TVD, 2184.0 N, -2787.3 E) | | | | | | | | | |
| - Rectangle (sides W30.0 H50.0 D0.0) | | | | | | | | | |

| Design Annotations | | | | |
|--------------------|----------------|-------------------|------------|------------------------------------|
| Measured Depth | Vertical Depth | Local Coordinates | | Comment |
| (ft) | (ft) | +N/-S (ft) | +E/-W (ft) | |
| 13,109.0 | 12,299.4 | 2,186.5 | -2,785.7 | Last Cathedral Survey @ 13,109' MD |
| 13,159.0 | 12,349.3 | 2,184.0 | -2,787.3 | Projection to Bit @ 13,159' |

Checked By: _____ Approved By: _____ Date: _____