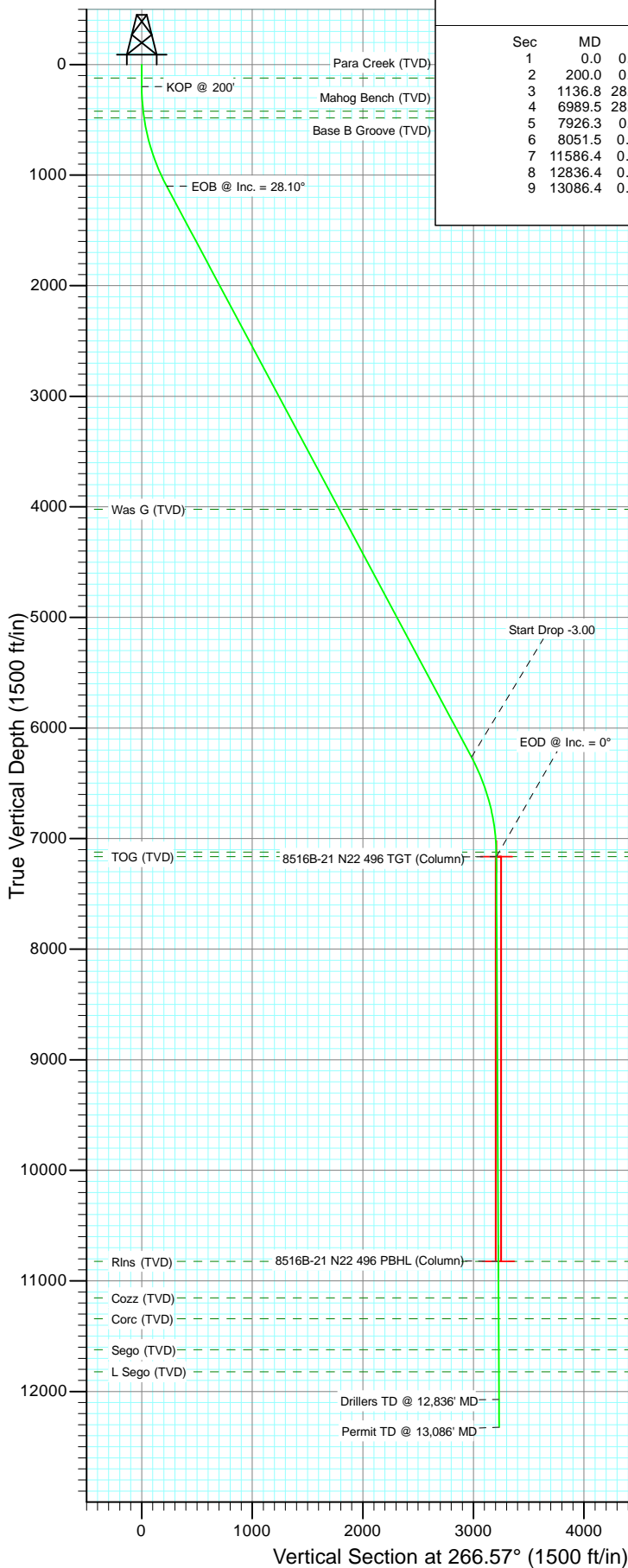
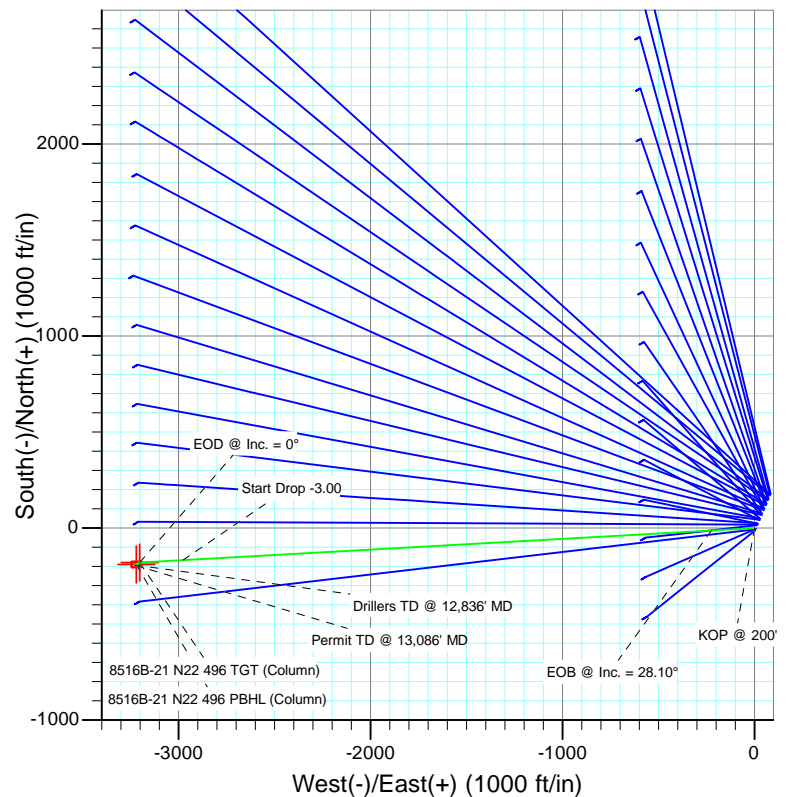




Project: Story Gulch
Site: S22-T4S-R96W (N22 496) (Column Pattern)
Well: 8516B-21 N22 496
Wellbore: DD
Design: Plan #1



| 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 | 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 1136.8 | 28.10 | 266.79 | 1099.7 | -12.6 | -224.8 | 3.00 | 266.79 | 225.2 | |
| 4 | 6989.5 | 28.10 | 266.79 | 6262.3 | -166.8 | -2977.6 | 0.00 | 0.00 | 2982.2 | |
| 5 | 7926.3 | 0.00 | 0.00 | 7162.0 | -179.4 | -3202.4 | 3.00 | 180.00 | 3207.4 | 8516B-21 N22 496 TGT (Column) |
| 6 | 8051.5 | 0.31 | 239.57 | 7287.2 | -179.6 | -3202.7 | 0.25 | 239.57 | 3207.7 | |
| 7 | 11586.4 | 0.31 | 239.57 | 10822.0 | -189.4 | -3219.4 | 0.00 | 0.00 | 3224.9 | 8516B-21 N22 496 PBHL (Column) |
| 8 | 12836.4 | 0.31 | 239.57 | 12072.0 | -192.8 | -3225.2 | 0.00 | 0.00 | 3231.0 | |
| 9 | 13086.4 | 0.31 | 239.57 | 12322.0 | -193.5 | -3226.4 | 0.00 | 0.00 | 3232.2 | |



| FORMATION TOP DETAILS | | |
|-----------------------|---------|---------------------|
| TVDPath | MDPath | Formation |
| 122.0 | 122.0 | Para Creek (TVD) |
| 422.0 | 422.5 | Mahog Bench (TVD) |
| 482.0 | 483.0 | Base B Groove (TVD) |
| 4022.0 | 4449.7 | Was G (TVD) |
| 7122.0 | 7886.3 | WF (TVD) |
| 7162.0 | 7926.3 | TOG (TVD) |
| 10822.0 | 11586.4 | Rlins (TVD) |
| 11152.0 | 11916.4 | Cozz (TVD) |
| 11342.0 | 12106.4 | Corc (TVD) |
| 11622.0 | 12386.4 | Sego (TVD) |
| 11822.0 | 12586.4 | L Sego (TVD) |



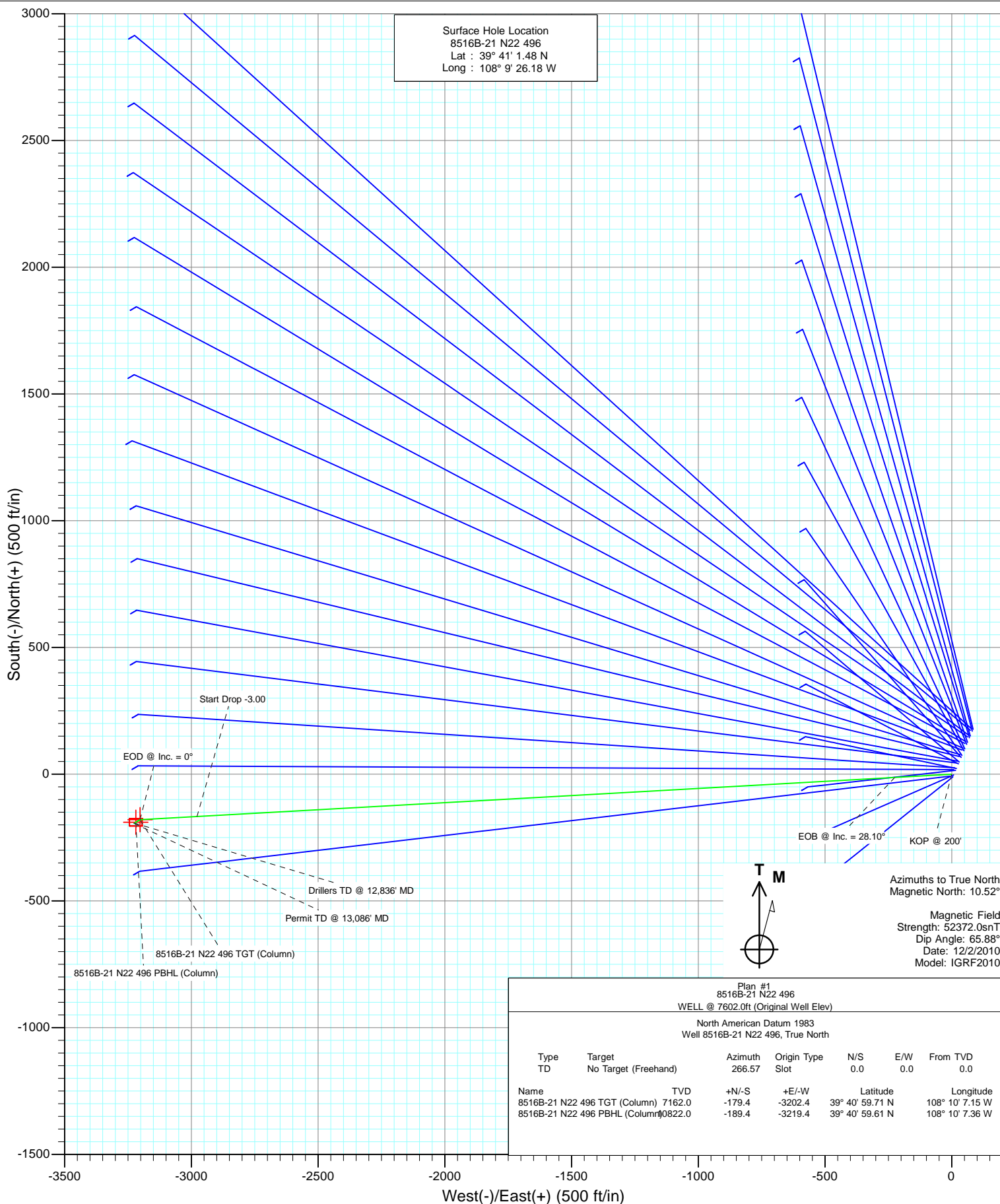
Azimuths to True North
Magnetic North: 10.52°

Magnetic Field
Strength: 52372.0snT
Dip Angle: 65.88°
Date: 12/2/2010
Model: IGRF2010

| Plan #1 8516B-21 N22 496 WELL @ 7602.0ft (Original Well Elev) | | | | | | |
|---|----------------------|---------|---------|-----------------|-----------------|-----|
| North American Datum 1983 Well 8516B-21 N22 496, True North | | | | | | |
| Type | Target | Azimuth | Origin | Type | N/S | E/W |
| TD | No Target (Freehand) | 266.57 | Slot | Slot | 0.0 | 0.0 |
| From TVD | | | | | | |
| 0.0 | | | | | | |
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | |
| 8516B-21 N22 496 TGT (Column) | 7162.0 | -179.4 | -3202.4 | 39° 40' 59.71 N | 108° 10' 7.15 W | |
| 8516B-21 N22 496 PBHL (Column) | 10822.0 | -189.4 | -3219.4 | 39° 40' 59.61 N | 108° 10' 7.36 W | |



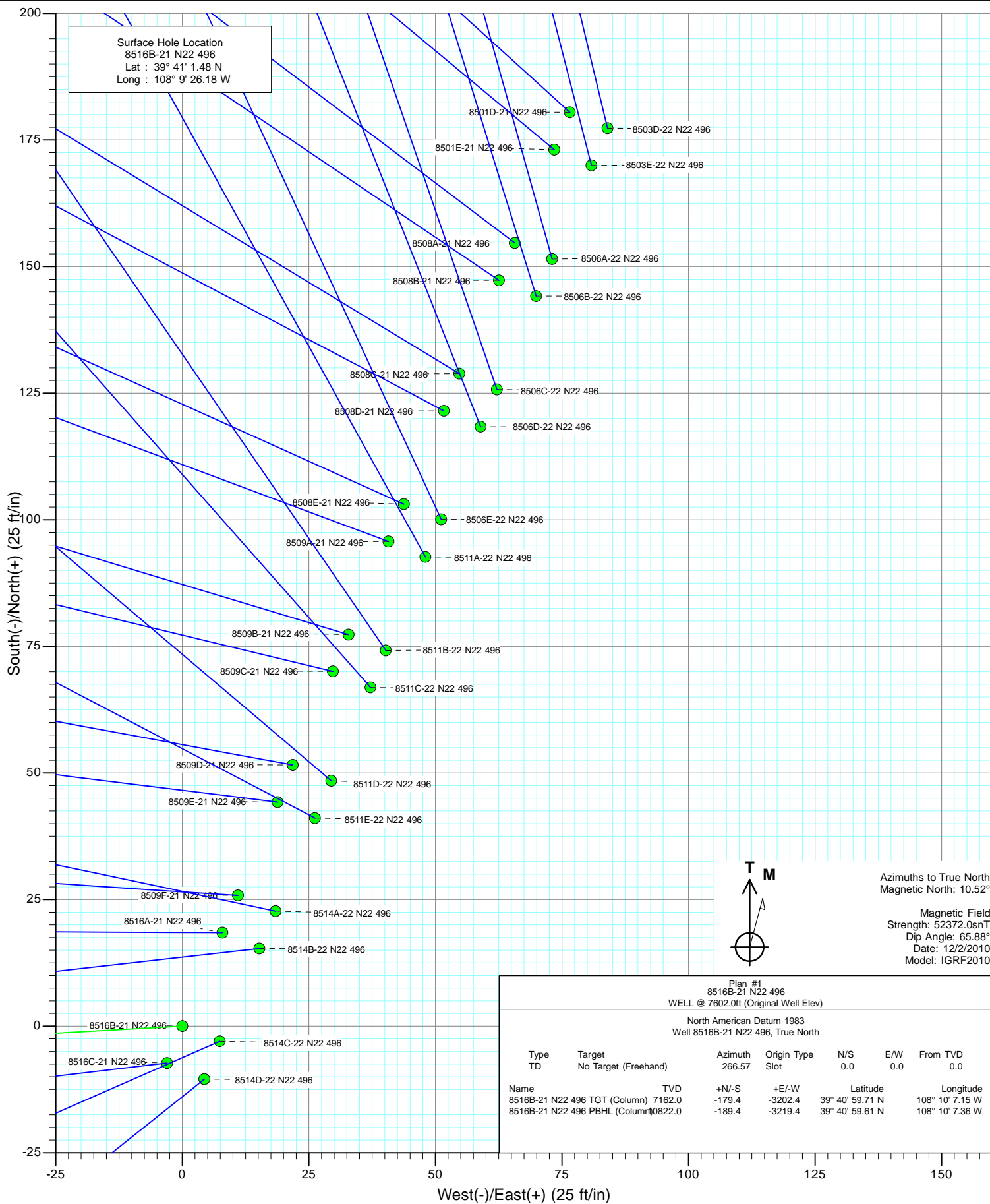
Project: Story Gulch
 Site: S22-T4S-R96W (N22 496) (Column Pattern)
 Well: 8516B-21 N22 496
 Wellbore: DD
 Design: Plan #1



| Plan #1 | | | | | | | |
|--------------------------------------|----------------------|---------|---------|-----------------|-----------------|-----|----------|
| 8516B-21 N22 496 | | | | | | | |
| WELL @ 7602.0ft (Original Well Elev) | | | | | | | |
| North American Datum 1983 | | | | | | | |
| Well 8516B-21 N22 496, True North | | | | | | | |
| Type | Target | Azimuth | Origin | Type | N/S | E/W | From TVD |
| TD | No Target (Freehand) | 266.57 | Slot | | 0.0 | 0.0 | 0.0 |
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | | |
| 8516B-21 N22 496 TGT (Column) | 7162.0 | -179.4 | -3202.4 | 39° 40' 59.71 N | 108° 10' 7.15 W | | |
| 8516B-21 N22 496 PBHL (Column) | 0822.0 | -189.4 | -3219.4 | 39° 40' 59.61 N | 108° 10' 7.36 W | | |

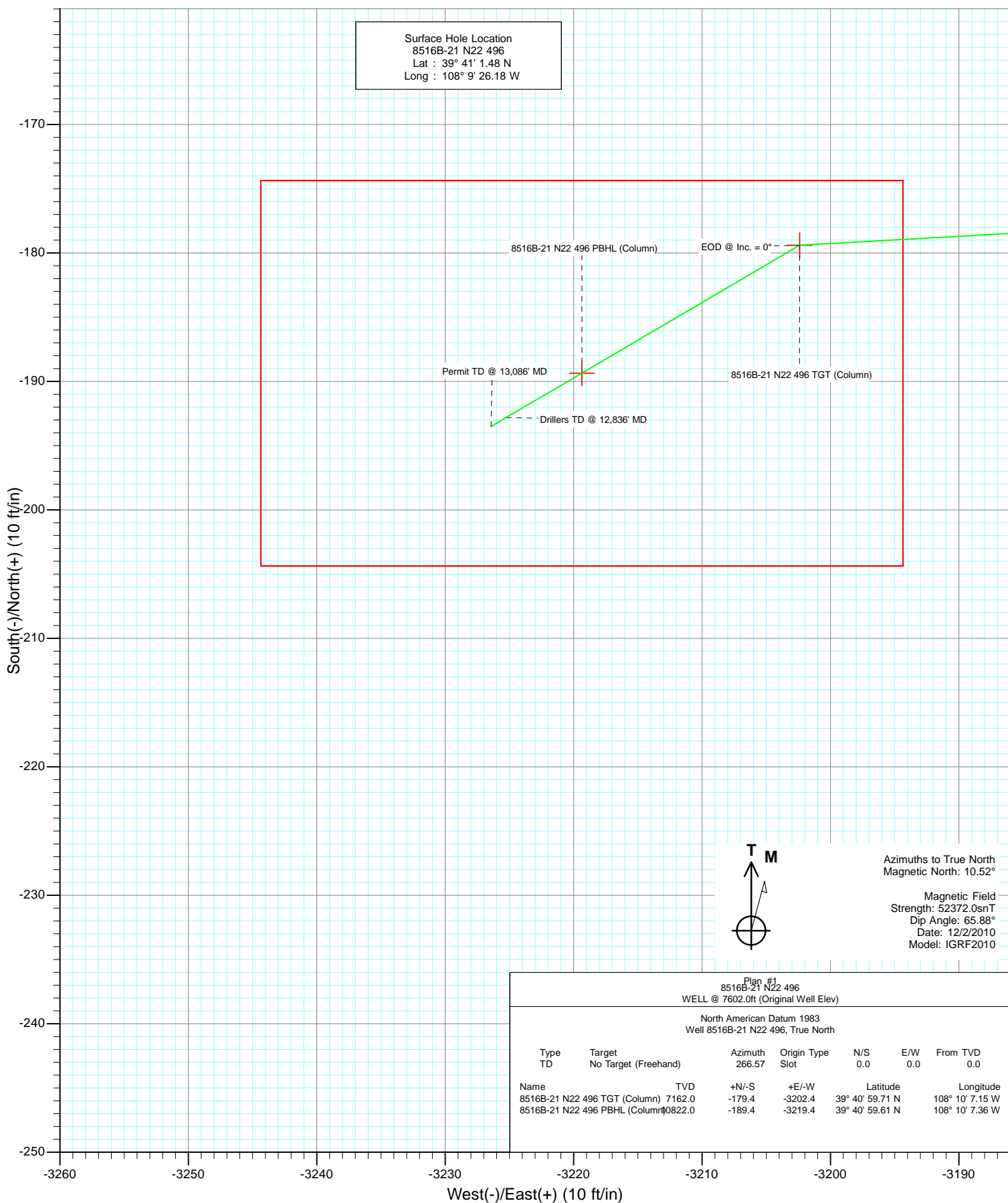


Project: Story Gulch
Site: S22-T4S-R96W (N22 496) (Column Pattern)
Well: 8516B-21 N22 496
Wellbore: DD
Design: Plan #1





Project: Story Gulch
Site: S22-T4S-R96W (N22 496) (Column Pattern)
Well: 8516B-21 N22 496
Wellbore: DD
Design: Plan #1



Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8516B-21 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8516B-21 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| 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 | | S22-T4S-R96W (N22 496) (Column Pattern) | | | |
|-----------------------|----------|---|-----------------|-------------------|-----------------|
| Site Position: | | Northing: | 1,685,048.56 ft | Latitude: | 39° 41' 3.24 N |
| From: | Lat/Long | Easting: | 2,252,316.79 ft | Longitude: | 108° 9' 25.11 W |
| Position Uncertainty: | 0.0 ft | Slot Radius: | 13.200 in | Grid Convergence: | -1.68 ° |

| | | | | | | |
|----------------------|------------------|--------|---------------------|-----------------|---------------|-----------------|
| Well | 8516B-21 N22 496 | | | | | |
| Well Position | +N/-S | 0.0 ft | Northing: | 1,684,873.74 ft | Latitude: | 39° 41' 1.48 N |
| | +E/-W | 0.0 ft | Easting: | 2,252,227.62 ft | Longitude: | 108° 9' 26.18 W |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft | Ground Level: | 7,569.0 ft |

| | | | | | |
|------------------|-------------------|--------------------|----------------------------|--------------------------|--------------------------------|
| Wellbore | DD | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 12/2/2010 | 10.52 | 65.88 | 52,372 |

| | | | | |
|--------------------------|----------------------------------|-----------------------|-----------------------|--------------------------|
| Design | Plan #1 | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 266.57 |

| Plan Sections | | | | | | | | | | |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|---------------------|
| 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 | |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,136.8 | 28.10 | 266.79 | 1,099.7 | -12.6 | -224.8 | 3.00 | 3.00 | 0.00 | 266.79 | |
| 6,989.5 | 28.10 | 266.79 | 6,262.3 | -166.8 | -2,977.6 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,926.3 | 0.00 | 0.00 | 7,162.0 | -179.4 | -3,202.4 | 3.00 | -3.00 | 0.00 | 180.00 | 8516B-21 N22 496 TC |
| 8,051.5 | 0.31 | 239.57 | 7,287.2 | -179.6 | -3,202.7 | 0.25 | 0.25 | -96.15 | 239.57 | |
| 11,586.4 | 0.31 | 239.57 | 10,822.0 | -189.4 | -3,219.4 | 0.00 | 0.00 | 0.00 | 0.00 | 8516B-21 N22 496 PE |
| 12,836.4 | 0.31 | 239.57 | 12,072.0 | -192.8 | -3,225.2 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 13,086.4 | 0.31 | 239.57 | 12,322.0 | -193.5 | -3,226.4 | 0.00 | 0.00 | 0.00 | 0.00 | |

Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8516B-21 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8516B-21 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | |
| 122.0 | 0.00 | 0.00 | 122.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | Para Creek (TVD) |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | KOP @ 200' |
| 300.0 | 3.00 | 266.79 | 300.0 | -0.1 | -2.6 | 2.6 | 3.00 | 3.00 | |
| 400.0 | 6.00 | 266.79 | 399.6 | -0.6 | -10.4 | 10.5 | 3.00 | 3.00 | |
| 422.5 | 6.68 | 266.79 | 422.0 | -0.7 | -12.9 | 12.9 | 3.00 | 3.00 | Mahog Bench (TVD) |
| 483.0 | 8.49 | 266.79 | 482.0 | -1.2 | -20.9 | 20.9 | 3.00 | 3.00 | Base B Groove (TVD) |
| 500.0 | 9.00 | 266.79 | 498.8 | -1.3 | -23.5 | 23.5 | 3.00 | 3.00 | |
| 600.0 | 12.00 | 266.79 | 597.1 | -2.3 | -41.7 | 41.7 | 3.00 | 3.00 | |
| 700.0 | 15.00 | 266.79 | 694.3 | -3.6 | -65.0 | 65.1 | 3.00 | 3.00 | |
| 800.0 | 18.00 | 266.79 | 790.2 | -5.2 | -93.3 | 93.5 | 3.00 | 3.00 | |
| 900.0 | 21.00 | 266.79 | 884.4 | -7.1 | -126.7 | 126.9 | 3.00 | 3.00 | |
| 1,000.0 | 24.00 | 266.79 | 976.8 | -9.2 | -164.9 | 165.1 | 3.00 | 3.00 | |
| 1,100.0 | 27.00 | 266.79 | 1,067.1 | -11.6 | -207.8 | 208.2 | 3.00 | 3.00 | |
| 1,136.8 | 28.10 | 266.79 | 1,099.7 | -12.6 | -224.8 | 225.2 | 3.00 | 3.00 | EOB @ Inc. = 28.10° |
| 1,200.0 | 28.10 | 266.79 | 1,155.4 | -14.3 | -254.6 | 255.0 | 0.00 | 0.00 | |
| 1,300.0 | 28.10 | 266.79 | 1,243.6 | -16.9 | -301.6 | 302.1 | 0.00 | 0.00 | |
| 1,400.0 | 28.10 | 266.79 | 1,331.9 | -19.5 | -348.6 | 349.2 | 0.00 | 0.00 | |
| 1,500.0 | 28.10 | 266.79 | 1,420.1 | -22.2 | -395.7 | 396.3 | 0.00 | 0.00 | |
| 1,600.0 | 28.10 | 266.79 | 1,508.3 | -24.8 | -442.7 | 443.4 | 0.00 | 0.00 | |
| 1,700.0 | 28.10 | 266.79 | 1,596.5 | -27.4 | -489.7 | 490.5 | 0.00 | 0.00 | |
| 1,800.0 | 28.10 | 266.79 | 1,684.7 | -30.1 | -536.8 | 537.6 | 0.00 | 0.00 | |
| 1,900.0 | 28.10 | 266.79 | 1,772.9 | -32.7 | -583.8 | 584.7 | 0.00 | 0.00 | |
| 2,000.0 | 28.10 | 266.79 | 1,861.1 | -35.3 | -630.8 | 631.8 | 0.00 | 0.00 | |
| 2,100.0 | 28.10 | 266.79 | 1,949.3 | -38.0 | -677.9 | 678.9 | 0.00 | 0.00 | |
| 2,200.0 | 28.10 | 266.79 | 2,037.5 | -40.6 | -724.9 | 726.0 | 0.00 | 0.00 | |
| 2,300.0 | 28.10 | 266.79 | 2,125.7 | -43.2 | -771.9 | 773.1 | 0.00 | 0.00 | |
| 2,400.0 | 28.10 | 266.79 | 2,213.9 | -45.9 | -819.0 | 820.2 | 0.00 | 0.00 | |
| 2,500.0 | 28.10 | 266.79 | 2,302.2 | -48.5 | -866.0 | 867.3 | 0.00 | 0.00 | |
| 2,600.0 | 28.10 | 266.79 | 2,390.4 | -51.1 | -913.0 | 914.5 | 0.00 | 0.00 | |
| 2,700.0 | 28.10 | 266.79 | 2,478.6 | -53.8 | -960.1 | 961.6 | 0.00 | 0.00 | |
| 2,800.0 | 28.10 | 266.79 | 2,566.8 | -56.4 | -1,007.1 | 1,008.7 | 0.00 | 0.00 | |
| 2,900.0 | 28.10 | 266.79 | 2,655.0 | -59.1 | -1,054.1 | 1,055.8 | 0.00 | 0.00 | |
| 3,000.0 | 28.10 | 266.79 | 2,743.2 | -61.7 | -1,101.2 | 1,102.9 | 0.00 | 0.00 | |
| 3,100.0 | 28.10 | 266.79 | 2,831.4 | -64.3 | -1,148.2 | 1,150.0 | 0.00 | 0.00 | |
| 3,200.0 | 28.10 | 266.79 | 2,919.6 | -67.0 | -1,195.2 | 1,197.1 | 0.00 | 0.00 | |
| 3,300.0 | 28.10 | 266.79 | 3,007.8 | -69.6 | -1,242.3 | 1,244.2 | 0.00 | 0.00 | |
| 3,400.0 | 28.10 | 266.79 | 3,096.0 | -72.2 | -1,289.3 | 1,291.3 | 0.00 | 0.00 | |
| 3,500.0 | 28.10 | 266.79 | 3,184.2 | -74.9 | -1,336.3 | 1,338.4 | 0.00 | 0.00 | |
| 3,600.0 | 28.10 | 266.79 | 3,272.5 | -77.5 | -1,383.4 | 1,385.5 | 0.00 | 0.00 | |
| 3,700.0 | 28.10 | 266.79 | 3,360.7 | -80.1 | -1,430.4 | 1,432.6 | 0.00 | 0.00 | |
| 3,800.0 | 28.10 | 266.79 | 3,448.9 | -82.8 | -1,477.4 | 1,479.7 | 0.00 | 0.00 | |
| 3,900.0 | 28.10 | 266.79 | 3,537.1 | -85.4 | -1,524.5 | 1,526.8 | 0.00 | 0.00 | |
| 4,000.0 | 28.10 | 266.79 | 3,625.3 | -88.0 | -1,571.5 | 1,573.9 | 0.00 | 0.00 | |
| 4,100.0 | 28.10 | 266.79 | 3,713.5 | -90.7 | -1,618.5 | 1,621.1 | 0.00 | 0.00 | |
| 4,200.0 | 28.10 | 266.79 | 3,801.7 | -93.3 | -1,665.6 | 1,668.2 | 0.00 | 0.00 | |
| 4,300.0 | 28.10 | 266.79 | 3,889.9 | -95.9 | -1,712.6 | 1,715.3 | 0.00 | 0.00 | |
| 4,400.0 | 28.10 | 266.79 | 3,978.1 | -98.6 | -1,759.6 | 1,762.4 | 0.00 | 0.00 | |
| 4,449.7 | 28.10 | 266.79 | 4,022.0 | -99.9 | -1,783.0 | 1,785.8 | 0.00 | 0.00 | Was G (TVD) |
| 4,500.0 | 28.10 | 266.79 | 4,066.3 | -101.2 | -1,806.7 | 1,809.5 | 0.00 | 0.00 | |
| 4,600.0 | 28.10 | 266.79 | 4,154.6 | -103.8 | -1,853.7 | 1,856.6 | 0.00 | 0.00 | |

Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8516B-21 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8516B-21 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
| 4,700.0 | 28.10 | 266.79 | 4,242.8 | -106.5 | -1,900.7 | 1,903.7 | 0.00 | 0.00 | |
| 4,800.0 | 28.10 | 266.79 | 4,331.0 | -109.1 | -1,947.8 | 1,950.8 | 0.00 | 0.00 | |
| 4,900.0 | 28.10 | 266.79 | 4,419.2 | -111.7 | -1,994.8 | 1,997.9 | 0.00 | 0.00 | |
| 5,000.0 | 28.10 | 266.79 | 4,507.4 | -114.4 | -2,041.8 | 2,045.0 | 0.00 | 0.00 | |
| 5,100.0 | 28.10 | 266.79 | 4,595.6 | -117.0 | -2,088.9 | 2,092.1 | 0.00 | 0.00 | |
| 5,200.0 | 28.10 | 266.79 | 4,683.8 | -119.7 | -2,135.9 | 2,139.2 | 0.00 | 0.00 | |
| 5,300.0 | 28.10 | 266.79 | 4,772.0 | -122.3 | -2,182.9 | 2,186.3 | 0.00 | 0.00 | |
| 5,400.0 | 28.10 | 266.79 | 4,860.2 | -124.9 | -2,230.0 | 2,233.4 | 0.00 | 0.00 | |
| 5,500.0 | 28.10 | 266.79 | 4,948.4 | -127.6 | -2,277.0 | 2,280.6 | 0.00 | 0.00 | |
| 5,600.0 | 28.10 | 266.79 | 5,036.6 | -130.2 | -2,324.0 | 2,327.7 | 0.00 | 0.00 | |
| 5,700.0 | 28.10 | 266.79 | 5,124.9 | -132.8 | -2,371.1 | 2,374.8 | 0.00 | 0.00 | |
| 5,800.0 | 28.10 | 266.79 | 5,213.1 | -135.5 | -2,418.1 | 2,421.9 | 0.00 | 0.00 | |
| 5,900.0 | 28.10 | 266.79 | 5,301.3 | -138.1 | -2,465.1 | 2,469.0 | 0.00 | 0.00 | |
| 6,000.0 | 28.10 | 266.79 | 5,389.5 | -140.7 | -2,512.2 | 2,516.1 | 0.00 | 0.00 | |
| 6,100.0 | 28.10 | 266.79 | 5,477.7 | -143.4 | -2,559.2 | 2,563.2 | 0.00 | 0.00 | |
| 6,200.0 | 28.10 | 266.79 | 5,565.9 | -146.0 | -2,606.2 | 2,610.3 | 0.00 | 0.00 | |
| 6,300.0 | 28.10 | 266.79 | 5,654.1 | -148.6 | -2,653.3 | 2,657.4 | 0.00 | 0.00 | |
| 6,400.0 | 28.10 | 266.79 | 5,742.3 | -151.3 | -2,700.3 | 2,704.5 | 0.00 | 0.00 | |
| 6,500.0 | 28.10 | 266.79 | 5,830.5 | -153.9 | -2,747.3 | 2,751.6 | 0.00 | 0.00 | |
| 6,600.0 | 28.10 | 266.79 | 5,918.7 | -156.5 | -2,794.4 | 2,798.7 | 0.00 | 0.00 | |
| 6,700.0 | 28.10 | 266.79 | 6,006.9 | -159.2 | -2,841.4 | 2,845.8 | 0.00 | 0.00 | |
| 6,800.0 | 28.10 | 266.79 | 6,095.2 | -161.8 | -2,888.4 | 2,892.9 | 0.00 | 0.00 | |
| 6,900.0 | 28.10 | 266.79 | 6,183.4 | -164.4 | -2,935.5 | 2,940.1 | 0.00 | 0.00 | |
| 6,989.5 | 28.10 | 266.79 | 6,262.3 | -166.8 | -2,977.6 | 2,982.2 | 0.00 | 0.00 | Start Drop -3.00 |
| 7,000.0 | 27.79 | 266.79 | 6,271.6 | -167.1 | -2,982.5 | 2,987.1 | 3.00 | -3.00 | |
| 7,100.0 | 24.79 | 266.79 | 6,361.2 | -169.6 | -3,026.7 | 3,031.4 | 3.00 | -3.00 | |
| 7,200.0 | 21.79 | 266.79 | 6,453.1 | -171.8 | -3,066.2 | 3,071.0 | 3.00 | -3.00 | |
| 7,300.0 | 18.79 | 266.79 | 6,546.9 | -173.7 | -3,100.8 | 3,105.6 | 3.00 | -3.00 | |
| 7,400.0 | 15.79 | 266.79 | 6,642.3 | -175.4 | -3,130.5 | 3,135.3 | 3.00 | -3.00 | |
| 7,500.0 | 12.79 | 266.79 | 6,739.2 | -176.7 | -3,155.1 | 3,160.0 | 3.00 | -3.00 | |
| 7,600.0 | 9.79 | 266.79 | 6,837.3 | -177.8 | -3,174.6 | 3,179.6 | 3.00 | -3.00 | |
| 7,700.0 | 6.79 | 266.79 | 6,936.2 | -178.6 | -3,189.0 | 3,194.0 | 3.00 | -3.00 | |
| 7,800.0 | 3.79 | 266.79 | 7,035.8 | -179.2 | -3,198.2 | 3,203.2 | 3.00 | -3.00 | |
| 7,886.3 | 1.20 | 266.79 | 7,122.0 | -179.4 | -3,202.0 | 3,207.0 | 3.00 | -3.00 | WF (TVD) |
| 7,900.0 | 0.79 | 266.79 | 7,135.7 | -179.4 | -3,202.2 | 3,207.2 | 3.00 | -3.00 | |
| 7,926.3 | 0.00 | 0.00 | 7,162.0 | -179.4 | -3,202.4 | 3,207.4 | 3.00 | -3.00 | EOD @ Inc. = 0° - TOG (TVD) - 8516B-21 N22 |
| 8,000.0 | 0.18 | 239.57 | 7,235.7 | -179.5 | -3,202.5 | 3,207.5 | 0.25 | 0.25 | |
| 8,051.5 | 0.31 | 239.57 | 7,287.2 | -179.6 | -3,202.7 | 3,207.7 | 0.25 | 0.25 | |
| 8,100.0 | 0.31 | 239.57 | 7,335.7 | -179.7 | -3,202.9 | 3,207.9 | 0.00 | 0.00 | |
| 8,200.0 | 0.31 | 239.57 | 7,435.7 | -180.0 | -3,203.4 | 3,208.4 | 0.00 | 0.00 | |
| 8,300.0 | 0.31 | 239.57 | 7,535.7 | -180.3 | -3,203.9 | 3,208.9 | 0.00 | 0.00 | |
| 8,400.0 | 0.31 | 239.57 | 7,635.7 | -180.5 | -3,204.3 | 3,209.4 | 0.00 | 0.00 | |
| 8,500.0 | 0.31 | 239.57 | 7,735.7 | -180.8 | -3,204.8 | 3,209.9 | 0.00 | 0.00 | |
| 8,600.0 | 0.31 | 239.57 | 7,835.7 | -181.1 | -3,205.3 | 3,210.4 | 0.00 | 0.00 | |
| 8,700.0 | 0.31 | 239.57 | 7,935.7 | -181.4 | -3,205.8 | 3,210.9 | 0.00 | 0.00 | |
| 8,800.0 | 0.31 | 239.57 | 8,035.7 | -181.6 | -3,206.2 | 3,211.3 | 0.00 | 0.00 | |
| 8,900.0 | 0.31 | 239.57 | 8,135.7 | -181.9 | -3,206.7 | 3,211.8 | 0.00 | 0.00 | |
| 9,000.0 | 0.31 | 239.57 | 8,235.7 | -182.2 | -3,207.2 | 3,212.3 | 0.00 | 0.00 | |
| 9,100.0 | 0.31 | 239.57 | 8,335.7 | -182.5 | -3,207.6 | 3,212.8 | 0.00 | 0.00 | |
| 9,200.0 | 0.31 | 239.57 | 8,435.7 | -182.7 | -3,208.1 | 3,213.3 | 0.00 | 0.00 | |
| 9,300.0 | 0.31 | 239.57 | 8,535.7 | -183.0 | -3,208.6 | 3,213.8 | 0.00 | 0.00 | |
| 9,400.0 | 0.31 | 239.57 | 8,635.7 | -183.3 | -3,209.0 | 3,214.3 | 0.00 | 0.00 | |

Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8516B-21 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8516B-21 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| Planned Survey | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|--|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Comments / Formations |
| 9,500.0 | 0.31 | 239.57 | 8,735.7 | -183.6 | -3,209.5 | 3,214.8 | 0.00 | 0.00 | |
| 9,600.0 | 0.31 | 239.57 | 8,835.7 | -183.9 | -3,210.0 | 3,215.2 | 0.00 | 0.00 | |
| 9,700.0 | 0.31 | 239.57 | 8,935.7 | -184.1 | -3,210.5 | 3,215.7 | 0.00 | 0.00 | |
| 9,800.0 | 0.31 | 239.57 | 9,035.7 | -184.4 | -3,210.9 | 3,216.2 | 0.00 | 0.00 | |
| 9,900.0 | 0.31 | 239.57 | 9,135.7 | -184.7 | -3,211.4 | 3,216.7 | 0.00 | 0.00 | |
| 10,000.0 | 0.31 | 239.57 | 9,235.7 | -185.0 | -3,211.9 | 3,217.2 | 0.00 | 0.00 | |
| 10,100.0 | 0.31 | 239.57 | 9,335.7 | -185.2 | -3,212.3 | 3,217.7 | 0.00 | 0.00 | |
| 10,200.0 | 0.31 | 239.57 | 9,435.7 | -185.5 | -3,212.8 | 3,218.2 | 0.00 | 0.00 | |
| 10,300.0 | 0.31 | 239.57 | 9,535.7 | -185.8 | -3,213.3 | 3,218.6 | 0.00 | 0.00 | |
| 10,400.0 | 0.31 | 239.57 | 9,635.7 | -186.1 | -3,213.8 | 3,219.1 | 0.00 | 0.00 | |
| 10,500.0 | 0.31 | 239.57 | 9,735.7 | -186.3 | -3,214.2 | 3,219.6 | 0.00 | 0.00 | |
| 10,600.0 | 0.31 | 239.57 | 9,835.7 | -186.6 | -3,214.7 | 3,220.1 | 0.00 | 0.00 | |
| 10,700.0 | 0.31 | 239.57 | 9,935.7 | -186.9 | -3,215.2 | 3,220.6 | 0.00 | 0.00 | |
| 10,800.0 | 0.31 | 239.57 | 10,035.7 | -187.2 | -3,215.6 | 3,221.1 | 0.00 | 0.00 | |
| 10,900.0 | 0.31 | 239.57 | 10,135.7 | -187.5 | -3,216.1 | 3,221.6 | 0.00 | 0.00 | |
| 11,000.0 | 0.31 | 239.57 | 10,235.7 | -187.7 | -3,216.6 | 3,222.1 | 0.00 | 0.00 | |
| 11,100.0 | 0.31 | 239.57 | 10,335.7 | -188.0 | -3,217.1 | 3,222.5 | 0.00 | 0.00 | |
| 11,200.0 | 0.31 | 239.57 | 10,435.7 | -188.3 | -3,217.5 | 3,223.0 | 0.00 | 0.00 | |
| 11,300.0 | 0.31 | 239.57 | 10,535.6 | -188.6 | -3,218.0 | 3,223.5 | 0.00 | 0.00 | |
| 11,400.0 | 0.31 | 239.57 | 10,635.6 | -188.8 | -3,218.5 | 3,224.0 | 0.00 | 0.00 | |
| 11,500.0 | 0.31 | 239.57 | 10,735.6 | -189.1 | -3,218.9 | 3,224.5 | 0.00 | 0.00 | |
| 11,586.4 | 0.31 | 239.57 | 10,822.0 | -189.4 | -3,219.4 | 3,224.9 | 0.00 | 0.00 | Rins (TVD) - 8516B-21 N22 496 PBHL (Column |
| 11,600.0 | 0.31 | 239.57 | 10,835.6 | -189.4 | -3,219.4 | 3,225.0 | 0.00 | 0.00 | |
| 11,700.0 | 0.31 | 239.57 | 10,935.6 | -189.7 | -3,219.9 | 3,225.5 | 0.00 | 0.00 | |
| 11,800.0 | 0.31 | 239.57 | 11,035.6 | -189.9 | -3,220.4 | 3,226.0 | 0.00 | 0.00 | |
| 11,900.0 | 0.31 | 239.57 | 11,135.6 | -190.2 | -3,220.8 | 3,226.4 | 0.00 | 0.00 | |
| 11,916.4 | 0.31 | 239.57 | 11,152.0 | -190.3 | -3,220.9 | 3,226.5 | 0.00 | 0.00 | Cozz (TVD) |
| 12,000.0 | 0.31 | 239.57 | 11,235.6 | -190.5 | -3,221.3 | 3,226.9 | 0.00 | 0.00 | |
| 12,100.0 | 0.31 | 239.57 | 11,335.6 | -190.8 | -3,221.8 | 3,227.4 | 0.00 | 0.00 | |
| 12,106.4 | 0.31 | 239.57 | 11,342.0 | -190.8 | -3,221.8 | 3,227.4 | 0.00 | 0.00 | Corc (TVD) |
| 12,200.0 | 0.31 | 239.57 | 11,435.6 | -191.0 | -3,222.2 | 3,227.9 | 0.00 | 0.00 | |
| 12,300.0 | 0.31 | 239.57 | 11,535.6 | -191.3 | -3,222.7 | 3,228.4 | 0.00 | 0.00 | |
| 12,386.4 | 0.31 | 239.57 | 11,622.0 | -191.6 | -3,223.1 | 3,228.8 | 0.00 | 0.00 | Sego (TVD) |
| 12,400.0 | 0.31 | 239.57 | 11,635.6 | -191.6 | -3,223.2 | 3,228.9 | 0.00 | 0.00 | |
| 12,500.0 | 0.31 | 239.57 | 11,735.6 | -191.9 | -3,223.7 | 3,229.4 | 0.00 | 0.00 | |
| 12,586.4 | 0.31 | 239.57 | 11,822.0 | -192.1 | -3,224.1 | 3,229.8 | 0.00 | 0.00 | L Sego (TVD) |
| 12,600.0 | 0.31 | 239.57 | 11,835.6 | -192.2 | -3,224.1 | 3,229.8 | 0.00 | 0.00 | |
| 12,700.0 | 0.31 | 239.57 | 11,935.6 | -192.4 | -3,224.6 | 3,230.3 | 0.00 | 0.00 | |
| 12,800.0 | 0.31 | 239.57 | 12,035.6 | -192.7 | -3,225.1 | 3,230.8 | 0.00 | 0.00 | |
| 12,836.4 | 0.31 | 239.57 | 12,072.0 | -192.8 | -3,225.2 | 3,231.0 | 0.00 | 0.00 | Drillers TD @ 12,836' MD |
| 12,900.0 | 0.31 | 239.57 | 12,135.6 | -193.0 | -3,225.5 | 3,231.3 | 0.00 | 0.00 | |
| 13,000.0 | 0.31 | 239.57 | 12,235.6 | -193.3 | -3,226.0 | 3,231.8 | 0.00 | 0.00 | |
| 13,086.4 | 0.31 | 239.57 | 12,322.0 | -193.5 | -3,226.4 | 3,232.2 | 0.00 | 0.00 | |

Cathedral Energy

Planning Report

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 5000.1 US Multi Users DB | Local Co-ordinate Reference: | Well 8516B-21 N22 496 |
| Company: | EnCana Oil & Gas (USA) Inc | TVD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Project: | Story Gulch | MD Reference: | WELL @ 7602.0ft (Original Well Elev) |
| Site: | S22-T4S-R96W (N22 496) (Column Pattern) | North Reference: | True |
| Well: | 8516B-21 N22 496 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DD | | |
| Design: | Plan #1 | | |

| Targets | | | | | | | | | |
|--------------------------------------|-----------|----------|----------|--------|----------|--------------|--------------|-----------------|-----------------|
| Target Name | | | | | | | | | |
| - hit/miss target | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - Shape | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (ft) | | |
| 8516B-21 N22 496 TGT | 0.00 | 0.00 | 7,162.0 | -179.4 | -3,202.4 | 1,684,788.08 | 2,249,021.34 | 39° 40' 59.71 N | 108° 10' 7.15 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |
| 8516B-21 N22 496 PBH | 0.00 | 0.00 | 10,822.0 | -189.4 | -3,219.4 | 1,684,778.62 | 2,249,004.10 | 39° 40' 59.61 N | 108° 10' 7.36 W |
| - plan hits target center | | | | | | | | | |
| - Rectangle (sides W30.0 H50.0 D0.0) | | | | | | | | | |

| Formations | | | | | | |
|----------------|----------------|---------------------|-----------|-----|---------------|--|
| Measured Depth | Vertical Depth | Name | Lithology | Dip | Dip Direction | |
| (ft) | (ft) | | | (°) | (°) | |
| 122.0 | 122.0 | Para Creek (TVD) | | | | |
| 422.5 | 422.0 | Mahog Bench (TVD) | | | | |
| 483.0 | 482.0 | Base B Groove (TVD) | | | | |
| 4,449.7 | 4,022.0 | Was G (TVD) | | | | |
| 7,886.3 | 7,122.0 | WF (TVD) | | | | |
| 7,926.3 | 7,162.0 | TOG (TVD) | | | | |
| 11,586.4 | 10,822.0 | Rlms (TVD) | | | | |
| 11,916.4 | 11,152.0 | Cozz (TVD) | | | | |
| 12,106.4 | 11,342.0 | Corc (TVD) | | | | |
| 12,386.4 | 11,622.0 | Sego (TVD) | | | | |
| 12,586.4 | 11,822.0 | L Sego (TVD) | | | | |

| Plan Annotations | | | | |
|------------------|----------------|-------------------|------------|--------------------------|
| Measured Depth | Vertical Depth | Local Coordinates | | Comment |
| (ft) | (ft) | +N/-S (ft) | +E/-W (ft) | |
| 200.0 | 200.0 | 0.0 | 0.0 | KOP @ 200' |
| 1,136.8 | 1,099.7 | -12.6 | -224.8 | EOB @ Inc. = 28.10° |
| 6,989.5 | 6,262.3 | -166.8 | -2,977.6 | Start Drop -3.00 |
| 7,926.3 | 7,162.0 | -179.4 | -3,202.4 | EOD @ Inc. = 0° |
| 12,836.4 | 12,072.0 | -179.6 | -3,202.7 | Drillers TD @ 12,836' MD |
| 13,086.4 | 12,322.0 | -189.4 | -3,219.4 | Permit TD @ 13,086' MD |