

# Edge Energy LLC

**Project:** Weld County, Colorado  
**Site:** Sec34-T1N-R65W Sec03-T1S-R65W  
**Well:** Antico 34-03-12 (C)  
**Design:** rev0  
**Rig:**

| Section Details |          |       |        |         |          |         |       |         |                              |
|-----------------|----------|-------|--------|---------|----------|---------|-------|---------|------------------------------|
| Sec             | MD       | Inc   | Azi    | TVD     | +N/-S    | +E/-W   | Dleg  | Vsect   | Annotation                   |
| 1               | 0.00     | 0.00  | 0.00   | 0.00    | 0.00     | 0.00    | 0.00  | 0.00    |                              |
| 2               | 1800.00  | 0.00  | 0.00   | 1800.00 | 0.00     | 0.00    | 0.00  | 0.00    | KOP Begin 2°/100' build      |
| 3               | 2000.00  | 4.00  | 218.91 | 1999.84 | -5.43    | -4.38   | 2.00  | 5.70    | Begin 4.00° tangent section  |
| 4               | 6957.02  | 4.00  | 218.91 | 6944.78 | -274.50  | -221.57 | 0.00  | 288.04  | Begin 10°/100' build         |
| 5               | 7033.02  | 11.60 | 218.91 | 7020.02 | -282.52  | -228.04 | 10.00 | 296.46  | Begin 10°/100' build/turn    |
| 6               | 7842.57  | 90.00 | 180.33 | 7499.00 | -847.98  | -292.65 | 10.00 | 864.89  | Begin 90.00° lateral section |
| 7               | 11959.31 | 90.00 | 180.33 | 7499.00 | -4964.65 | -316.66 | 0.00  | 4974.74 | PBHL/TD                      |

## DESIGN TARGET DETAILS

| Name                                 | TVD     | +N/-S    | +E/-W   | Northing  | Easting    |
|--------------------------------------|---------|----------|---------|-----------|------------|
| Antico 34-3-12 PBHL 470 FSL 2475 FWL | 7499.00 | -4964.65 | -316.66 | 239629.77 | 3237975.34 |



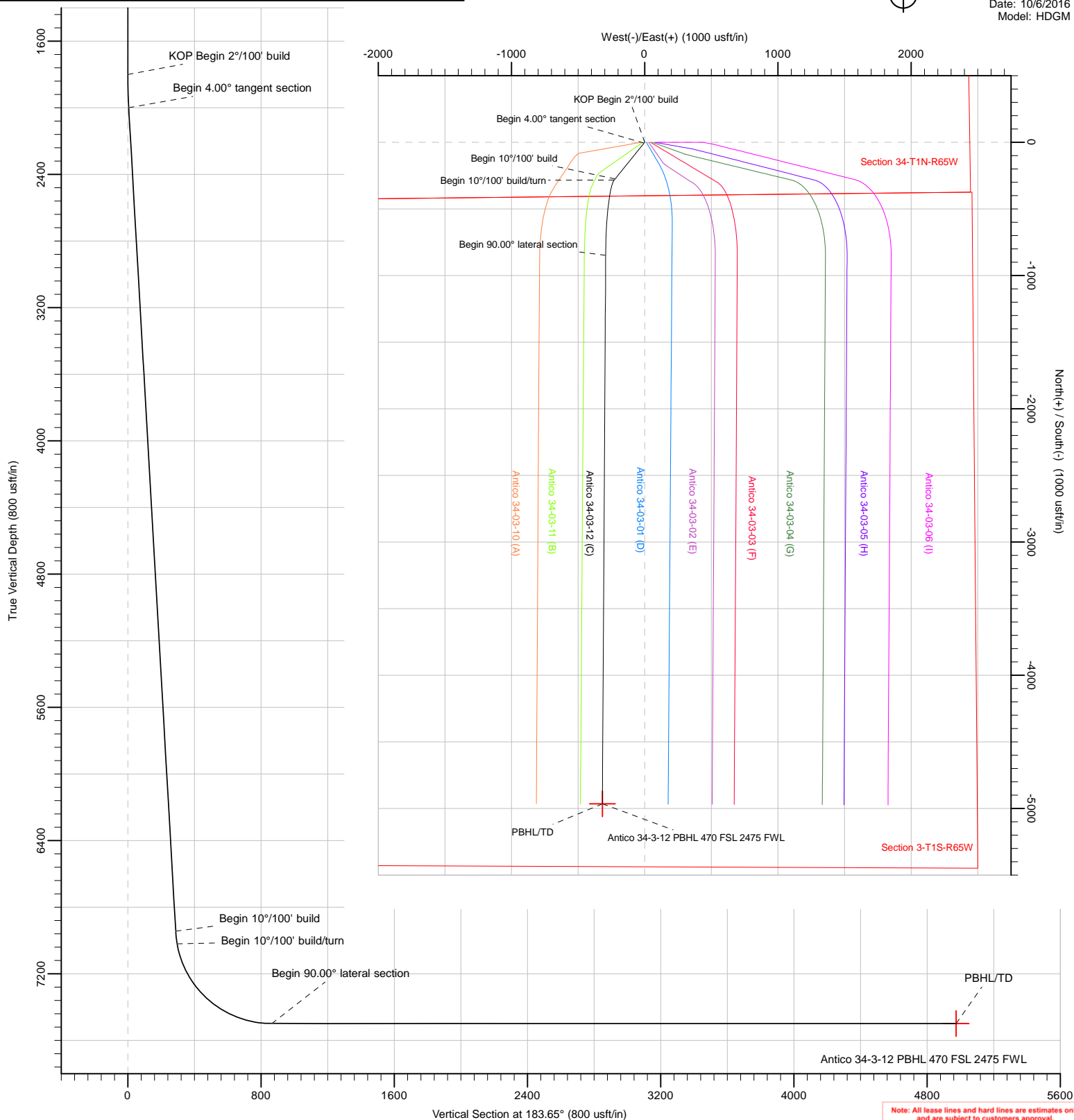
PRODIRECTIONAL



Azimuths to Grid North  
 True North: -0.55°  
 Magnetic North: 7.78°

Magnetic Field  
 Strength: 52203.6nT  
 Dip Angle: 66.47°  
 Date: 10/6/2016  
 Model: HDGM

|   |                        |             |               |
|---|------------------------|-------------|---------------|
| Antico 34-03-12 (C)   |                        |             |               |
| Surf Loc: 400 FSL 2441 FEL SW 1/4 SE 1/4 Sec34-T1N-R65W                           |                        |             |               |
| North American Datum 1983   | Colorado Northern Zone |             |               |
| Northing  | Easting                | Latitude    | Longitude     |
| 1244594.42  | 3238291.99             | 40.00165994 | -104.64939000 |
| RKB=5133+16 @ 5149.00usft   |                        |             |               |
| Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Add 7.78° |                        |             |               |



## Planning Report

|                  |                               |                                     |                           |
|------------------|-------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | DB Jul2216dt                  | <b>Local Co-ordinate Reference:</b> | Well Antico 34-03-12 (C)  |
| <b>Company:</b>  | Edge Energy LLC               | <b>TVD Reference:</b>               | RKB=5133+16 @ 5149.00usft |
| <b>Project:</b>  | Weld County, Colorado         | <b>MD Reference:</b>                | RKB=5133+16 @ 5149.00usft |
| <b>Site:</b>     | Sec34-T1N-R65W Sec03-T1S-R65W | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Antico 34-03-12 (C)           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Original Hole                 |                                     |                           |
| <b>Design:</b>   | rev0                          |                                     |                           |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Weld County, Colorado     |                      |                |
| <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 Northern Zone    |                      |                |

|                       |           |                               |                   |                   |               |
|-----------------------|-----------|-------------------------------|-------------------|-------------------|---------------|
| Site                  |           | Sec34-T1N-R65W Sec03-T1S-R65W |                   |                   |               |
| Site Position:        |           | Northing:                     | 1,244,594.57 usft | Latitude:         | 40.00166000   |
| From:                 | Lat/Long  | Easting:                      | 3,238,306.00 usft | Longitude:        | -104.64934000 |
| Position Uncertainty: | 0.00 usft | Slot Radius:                  | 13-3/16 "         | Grid Convergence: | 0.55 °        |

|                      |  |             |                     |                   |               |               |
|----------------------|--|-------------|---------------------|-------------------|---------------|---------------|
| Well                 | Antico 34-03-12 (C), Surf Loc: 400 FSL 2441 FEL SW 1/4 SE 1/4 Sec34-T1N-R65W |             |                     |                   |               |               |
| Well Position        | +N/-S  | -0.15 usft  | Northing:           | 1,244,594.42 usft | Latitude:     | 40.00165995   |
|                      | +E/-W  | -14.01 usft | Easting:            | 3,238,291.99 usft | Longitude:    | -104.64939000 |
| Position Uncertainty |  | 0.00 usft   | Wellhead Elevation: | 0.00 usft         | Ground Level: | 5,133.00 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Original Hole     |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | HDGM              | 10/6/2016          | 8.33                   | 66.47                | 52,204                     |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | rev0                           |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PLAN                | <b>Tie On Depth:</b> | 0.00                 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |
|                          | 0.00                           | 0.00                | 0.00                 | 183.65               |

| <b>Plan Sections</b>  |                 |             |                       |              |              |                         |                        |                       |         |                     |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target              |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 1,800.00              | 0.00            | 0.00        | 1,800.00              | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 2,000.00              | 4.00            | 218.91      | 1,999.84              | -5.43        | -4.38        | 2.00                    | 2.00                   | 0.00                  | 218.91  |                     |
| 6,957.02              | 4.00            | 218.91      | 6,944.78              | -274.50      | -221.57      | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 7,033.02              | 11.60           | 218.91      | 7,020.02              | -282.52      | -228.04      | 10.00                   | 10.00                  | 0.00                  | 0.00    |                     |
| 7,842.57              | 90.00           | 180.33      | 7,499.00              | -847.98      | -292.65      | 10.00                   | 9.68                   | -4.77                 | -39.15  |                     |
| 11,959.31             | 90.00           | 180.33      | 7,499.00              | -4,964.65    | -316.66      | 0.00                    | 0.00                   | 0.00                  | 0.00    | Antico 34-3-12 PBHL |

# Planning Report

|                  |                               |                                     |                           |
|------------------|-------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | DB Jul2216dt                  | <b>Local Co-ordinate Reference:</b> | Well Antico 34-03-12 (C)  |
| <b>Company:</b>  | Edge Energy LLC               | <b>TVD Reference:</b>               | RKB=5133+16 @ 5149.00usft |
| <b>Project:</b>  | Weld County, Colorado         | <b>MD Reference:</b>                | RKB=5133+16 @ 5149.00usft |
| <b>Site:</b>     | Sec34-T1N-R65W Sec03-T1S-R65W | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Antico 34-03-12 (C)           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Original Hole                 |                                     |                           |
| <b>Design:</b>   | rev0                          |                                     |                           |

| Planned Survey              |                 |             |                       |              |              |                         |                         |                        |                       |
|-----------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)       | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 0.00                        | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 100.00                      | 0.00            | 0.00        | 100.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 200.00                      | 0.00            | 0.00        | 200.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 300.00                      | 0.00            | 0.00        | 300.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 400.00                      | 0.00            | 0.00        | 400.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 500.00                      | 0.00            | 0.00        | 500.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 600.00                      | 0.00            | 0.00        | 600.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 700.00                      | 0.00            | 0.00        | 700.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 800.00                      | 0.00            | 0.00        | 800.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 900.00                      | 0.00            | 0.00        | 900.00                | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,000.00                    | 0.00            | 0.00        | 1,000.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,100.00                    | 0.00            | 0.00        | 1,100.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,200.00                    | 0.00            | 0.00        | 1,200.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,300.00                    | 0.00            | 0.00        | 1,300.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,400.00                    | 0.00            | 0.00        | 1,400.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,500.00                    | 0.00            | 0.00        | 1,500.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,600.00                    | 0.00            | 0.00        | 1,600.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,700.00                    | 0.00            | 0.00        | 1,700.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| 1,800.00                    | 0.00            | 0.00        | 1,800.00              | 0.00         | 0.00         | 0.00                    | 0.00                    | 0.00                   | 0.00                  |
| KOP Begin 2°/100' build     |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,900.00                    | 2.00            | 218.91      | 1,899.98              | -1.36        | -1.10        | 1.42                    | 2.00                    | 2.00                   | 0.00                  |
| 2,000.00                    | 4.00            | 218.91      | 1,999.84              | -5.43        | -4.38        | 5.70                    | 2.00                    | 2.00                   | 0.00                  |
| Begin 4.00° tangent section |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,100.00                    | 4.00            | 218.91      | 2,099.59              | -10.86       | -8.76        | 11.39                   | 0.00                    | 0.00                   | 0.00                  |
| 2,200.00                    | 4.00            | 218.91      | 2,199.35              | -16.29       | -13.15       | 17.09                   | 0.00                    | 0.00                   | 0.00                  |
| 2,300.00                    | 4.00            | 218.91      | 2,299.11              | -21.71       | -17.53       | 22.79                   | 0.00                    | 0.00                   | 0.00                  |
| 2,400.00                    | 4.00            | 218.91      | 2,398.86              | -27.14       | -21.91       | 28.48                   | 0.00                    | 0.00                   | 0.00                  |
| 2,500.00                    | 4.00            | 218.91      | 2,498.62              | -32.57       | -26.29       | 34.18                   | 0.00                    | 0.00                   | 0.00                  |
| 2,600.00                    | 4.00            | 218.91      | 2,598.38              | -38.00       | -30.67       | 39.87                   | 0.00                    | 0.00                   | 0.00                  |
| 2,700.00                    | 4.00            | 218.91      | 2,698.13              | -43.43       | -35.05       | 45.57                   | 0.00                    | 0.00                   | 0.00                  |
| 2,800.00                    | 4.00            | 218.91      | 2,797.89              | -48.85       | -39.43       | 51.27                   | 0.00                    | 0.00                   | 0.00                  |
| 2,900.00                    | 4.00            | 218.91      | 2,897.65              | -54.28       | -43.82       | 56.96                   | 0.00                    | 0.00                   | 0.00                  |
| 3,000.00                    | 4.00            | 218.91      | 2,997.40              | -59.71       | -48.20       | 62.66                   | 0.00                    | 0.00                   | 0.00                  |
| 3,100.00                    | 4.00            | 218.91      | 3,097.16              | -65.14       | -52.58       | 68.35                   | 0.00                    | 0.00                   | 0.00                  |
| 3,200.00                    | 4.00            | 218.91      | 3,196.91              | -70.57       | -56.96       | 74.05                   | 0.00                    | 0.00                   | 0.00                  |
| 3,300.00                    | 4.00            | 218.91      | 3,296.67              | -75.99       | -61.34       | 79.74                   | 0.00                    | 0.00                   | 0.00                  |
| 3,400.00                    | 4.00            | 218.91      | 3,396.43              | -81.42       | -65.72       | 85.44                   | 0.00                    | 0.00                   | 0.00                  |
| 3,500.00                    | 4.00            | 218.91      | 3,496.18              | -86.85       | -70.10       | 91.14                   | 0.00                    | 0.00                   | 0.00                  |
| 3,600.00                    | 4.00            | 218.91      | 3,595.94              | -92.28       | -74.49       | 96.83                   | 0.00                    | 0.00                   | 0.00                  |
| 3,700.00                    | 4.00            | 218.91      | 3,695.70              | -97.71       | -78.87       | 102.53                  | 0.00                    | 0.00                   | 0.00                  |
| 3,800.00                    | 4.00            | 218.91      | 3,795.45              | -103.13      | -83.25       | 108.22                  | 0.00                    | 0.00                   | 0.00                  |
| 3,900.00                    | 4.00            | 218.91      | 3,895.21              | -108.56      | -87.63       | 113.92                  | 0.00                    | 0.00                   | 0.00                  |
| 4,000.00                    | 4.00            | 218.91      | 3,994.97              | -113.99      | -92.01       | 119.62                  | 0.00                    | 0.00                   | 0.00                  |
| 4,100.00                    | 4.00            | 218.91      | 4,094.72              | -119.42      | -96.39       | 125.31                  | 0.00                    | 0.00                   | 0.00                  |
| 4,200.00                    | 4.00            | 218.91      | 4,194.48              | -124.85      | -100.77      | 131.01                  | 0.00                    | 0.00                   | 0.00                  |
| 4,300.00                    | 4.00            | 218.91      | 4,294.23              | -130.27      | -105.16      | 136.70                  | 0.00                    | 0.00                   | 0.00                  |
| 4,400.00                    | 4.00            | 218.91      | 4,393.99              | -135.70      | -109.54      | 142.40                  | 0.00                    | 0.00                   | 0.00                  |
| 4,500.00                    | 4.00            | 218.91      | 4,493.75              | -141.13      | -113.92      | 148.09                  | 0.00                    | 0.00                   | 0.00                  |
| 4,600.00                    | 4.00            | 218.91      | 4,593.50              | -146.56      | -118.30      | 153.79                  | 0.00                    | 0.00                   | 0.00                  |
| 4,700.00                    | 4.00            | 218.91      | 4,693.26              | -151.99      | -122.68      | 159.49                  | 0.00                    | 0.00                   | 0.00                  |
| 4,800.00                    | 4.00            | 218.91      | 4,793.02              | -157.41      | -127.06      | 165.18                  | 0.00                    | 0.00                   | 0.00                  |
| 4,900.00                    | 4.00            | 218.91      | 4,892.77              | -162.84      | -131.44      | 170.88                  | 0.00                    | 0.00                   | 0.00                  |
| 5,000.00                    | 4.00            | 218.91      | 4,992.53              | -168.27      | -135.83      | 176.57                  | 0.00                    | 0.00                   | 0.00                  |
| 5,100.00                    | 4.00            | 218.91      | 5,092.29              | -173.70      | -140.21      | 182.27                  | 0.00                    | 0.00                   | 0.00                  |

# Planning Report

|                  |                               |                                     |                           |
|------------------|-------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | DB Jul2216dt                  | <b>Local Co-ordinate Reference:</b> | Well Antico 34-03-12 (C)  |
| <b>Company:</b>  | Edge Energy LLC               | <b>TVD Reference:</b>               | RKB=5133+16 @ 5149.00usft |
| <b>Project:</b>  | Weld County, Colorado         | <b>MD Reference:</b>                | RKB=5133+16 @ 5149.00usft |
| <b>Site:</b>     | Sec34-T1N-R65W Sec03-T1S-R65W | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Antico 34-03-12 (C)           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Original Hole                 |                                     |                           |
| <b>Design:</b>   | rev0                          |                                     |                           |

| Planned Survey               |                 |             |                       |              |              |                         |                         |                        |                       |
|------------------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (usft)        | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 5,200.00                     | 4.00            | 218.91      | 5,192.04              | -179.13      | -144.59      | 187.97                  | 0.00                    | 0.00                   | 0.00                  |
| 5,300.00                     | 4.00            | 218.91      | 5,291.80              | -184.55      | -148.97      | 193.66                  | 0.00                    | 0.00                   | 0.00                  |
| 5,400.00                     | 4.00            | 218.91      | 5,391.56              | -189.98      | -153.35      | 199.36                  | 0.00                    | 0.00                   | 0.00                  |
| 5,500.00                     | 4.00            | 218.91      | 5,491.31              | -195.41      | -157.73      | 205.05                  | 0.00                    | 0.00                   | 0.00                  |
| 5,600.00                     | 4.00            | 218.91      | 5,591.07              | -200.84      | -162.11      | 210.75                  | 0.00                    | 0.00                   | 0.00                  |
| 5,700.00                     | 4.00            | 218.91      | 5,690.82              | -206.27      | -166.49      | 216.45                  | 0.00                    | 0.00                   | 0.00                  |
| 5,800.00                     | 4.00            | 218.91      | 5,790.58              | -211.69      | -170.88      | 222.14                  | 0.00                    | 0.00                   | 0.00                  |
| 5,900.00                     | 4.00            | 218.91      | 5,890.34              | -217.12      | -175.26      | 227.84                  | 0.00                    | 0.00                   | 0.00                  |
| 6,000.00                     | 4.00            | 218.91      | 5,990.09              | -222.55      | -179.64      | 233.53                  | 0.00                    | 0.00                   | 0.00                  |
| 6,100.00                     | 4.00            | 218.91      | 6,089.85              | -227.98      | -184.02      | 239.23                  | 0.00                    | 0.00                   | 0.00                  |
| 6,200.00                     | 4.00            | 218.91      | 6,189.61              | -233.41      | -188.40      | 244.92                  | 0.00                    | 0.00                   | 0.00                  |
| 6,300.00                     | 4.00            | 218.91      | 6,289.36              | -238.83      | -192.78      | 250.62                  | 0.00                    | 0.00                   | 0.00                  |
| 6,400.00                     | 4.00            | 218.91      | 6,389.12              | -244.26      | -197.16      | 256.32                  | 0.00                    | 0.00                   | 0.00                  |
| 6,500.00                     | 4.00            | 218.91      | 6,488.88              | -249.69      | -201.55      | 262.01                  | 0.00                    | 0.00                   | 0.00                  |
| 6,600.00                     | 4.00            | 218.91      | 6,588.63              | -255.12      | -205.93      | 267.71                  | 0.00                    | 0.00                   | 0.00                  |
| 6,700.00                     | 4.00            | 218.91      | 6,688.39              | -260.55      | -210.31      | 273.40                  | 0.00                    | 0.00                   | 0.00                  |
| 6,800.00                     | 4.00            | 218.91      | 6,788.15              | -265.97      | -214.69      | 279.10                  | 0.00                    | 0.00                   | 0.00                  |
| 6,900.00                     | 4.00            | 218.91      | 6,887.90              | -271.40      | -219.07      | 284.80                  | 0.00                    | 0.00                   | 0.00                  |
| 6,957.02                     | 4.00            | 218.91      | 6,944.78              | -274.50      | -221.57      | 288.04                  | 0.00                    | 0.00                   | 0.00                  |
| Begin 10°/100' build         |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,000.00                     | 8.30            | 218.91      | 6,987.51              | -278.08      | -224.46      | 291.80                  | 10.00                   | 10.00                  | 0.00                  |
| 7,033.02                     | 11.60           | 218.91      | 7,020.02              | -282.52      | -228.04      | 296.46                  | 10.00                   | 10.00                  | 0.00                  |
| Begin 10°/100' build/turn    |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,100.00                     | 17.31           | 204.58      | 7,084.88              | -296.84      | -236.43      | 311.28                  | 10.00                   | 8.53                   | -21.39                |
| 7,200.00                     | 26.69           | 195.09      | 7,177.52              | -332.14      | -248.49      | 347.28                  | 10.00                   | 9.38                   | -9.50                 |
| 7,300.00                     | 36.38           | 190.34      | 7,262.66              | -383.13      | -259.69      | 398.88                  | 10.00                   | 9.69                   | -4.75                 |
| 7,400.00                     | 46.19           | 187.39      | 7,337.72              | -448.25      | -269.68      | 464.51                  | 10.00                   | 9.81                   | -2.95                 |
| 7,500.00                     | 56.06           | 185.28      | 7,400.41              | -525.54      | -278.15      | 542.18                  | 10.00                   | 9.87                   | -2.11                 |
| 7,600.00                     | 65.95           | 183.61      | 7,448.83              | -612.63      | -284.85      | 629.52                  | 10.00                   | 9.89                   | -1.67                 |
| 7,700.00                     | 75.86           | 182.18      | 7,481.50              | -706.89      | -289.59      | 723.89                  | 10.00                   | 9.91                   | -1.43                 |
| 7,800.00                     | 85.78           | 180.88      | 7,497.44              | -805.45      | -292.20      | 822.42                  | 10.00                   | 9.92                   | -1.31                 |
| 7,842.57                     | 90.00           | 180.33      | 7,499.00              | -847.98      | -292.65      | 864.89                  | 10.00                   | 9.92                   | -1.27                 |
| Begin 90.00° lateral section |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,900.00                     | 90.00           | 180.33      | 7,499.00              | -905.41      | -292.98      | 922.22                  | 0.00                    | 0.00                   | 0.00                  |
| 8,000.00                     | 90.00           | 180.33      | 7,499.00              | -1,005.41    | -293.57      | 1,022.05                | 0.00                    | 0.00                   | 0.00                  |
| 8,100.00                     | 90.00           | 180.33      | 7,499.00              | -1,105.41    | -294.15      | 1,121.89                | 0.00                    | 0.00                   | 0.00                  |
| 8,200.00                     | 90.00           | 180.33      | 7,499.00              | -1,205.40    | -294.73      | 1,221.72                | 0.00                    | 0.00                   | 0.00                  |
| 8,300.00                     | 90.00           | 180.33      | 7,499.00              | -1,305.40    | -295.32      | 1,321.55                | 0.00                    | 0.00                   | 0.00                  |
| 8,400.00                     | 90.00           | 180.33      | 7,499.00              | -1,405.40    | -295.90      | 1,421.39                | 0.00                    | 0.00                   | 0.00                  |
| 8,500.00                     | 90.00           | 180.33      | 7,499.00              | -1,505.40    | -296.48      | 1,521.22                | 0.00                    | 0.00                   | 0.00                  |
| 8,600.00                     | 90.00           | 180.33      | 7,499.00              | -1,605.40    | -297.07      | 1,621.05                | 0.00                    | 0.00                   | 0.00                  |
| 8,700.00                     | 90.00           | 180.33      | 7,499.00              | -1,705.40    | -297.65      | 1,720.88                | 0.00                    | 0.00                   | 0.00                  |
| 8,800.00                     | 90.00           | 180.33      | 7,499.00              | -1,805.39    | -298.23      | 1,820.72                | 0.00                    | 0.00                   | 0.00                  |
| 8,900.00                     | 90.00           | 180.33      | 7,499.00              | -1,905.39    | -298.82      | 1,920.55                | 0.00                    | 0.00                   | 0.00                  |
| 9,000.00                     | 90.00           | 180.33      | 7,499.00              | -2,005.39    | -299.40      | 2,020.38                | 0.00                    | 0.00                   | 0.00                  |
| 9,100.00                     | 90.00           | 180.33      | 7,499.00              | -2,105.39    | -299.98      | 2,120.21                | 0.00                    | 0.00                   | 0.00                  |
| 9,200.00                     | 90.00           | 180.33      | 7,499.00              | -2,205.39    | -300.57      | 2,220.05                | 0.00                    | 0.00                   | 0.00                  |
| 9,300.00                     | 90.00           | 180.33      | 7,499.00              | -2,305.38    | -301.15      | 2,319.88                | 0.00                    | 0.00                   | 0.00                  |
| 9,400.00                     | 90.00           | 180.33      | 7,499.00              | -2,405.38    | -301.73      | 2,419.71                | 0.00                    | 0.00                   | 0.00                  |
| 9,500.00                     | 90.00           | 180.33      | 7,499.00              | -2,505.38    | -302.31      | 2,519.54                | 0.00                    | 0.00                   | 0.00                  |
| 9,600.00                     | 90.00           | 180.33      | 7,499.00              | -2,605.38    | -302.90      | 2,619.38                | 0.00                    | 0.00                   | 0.00                  |
| 9,700.00                     | 90.00           | 180.33      | 7,499.00              | -2,705.38    | -303.48      | 2,719.21                | 0.00                    | 0.00                   | 0.00                  |
| 9,800.00                     | 90.00           | 180.33      | 7,499.00              | -2,805.38    | -304.06      | 2,819.04                | 0.00                    | 0.00                   | 0.00                  |

# Planning Report

|                  |                               |                                     |                           |
|------------------|-------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | DB Jul2216dt                  | <b>Local Co-ordinate Reference:</b> | Well Antico 34-03-12 (C)  |
| <b>Company:</b>  | Edge Energy LLC               | <b>TVD Reference:</b>               | RKB=5133+16 @ 5149.00usft |
| <b>Project:</b>  | Weld County, Colorado         | <b>MD Reference:</b>                | RKB=5133+16 @ 5149.00usft |
| <b>Site:</b>     | Sec34-T1N-R65W Sec03-T1S-R65W | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Antico 34-03-12 (C)           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Original Hole                 |                                     |                           |
| <b>Design:</b>   | rev0                          |                                     |                           |

| Planned Survey        |                 |             |                       |              |              |                         |                         |                        |                       |  |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|------------------------|-----------------------|--|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |  |
| 9,900.00              | 90.00           | 180.33      | 7,499.00              | -2,905.37    | -304.65      | 2,918.87                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,000.00             | 90.00           | 180.33      | 7,499.00              | -3,005.37    | -305.23      | 3,018.71                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,100.00             | 90.00           | 180.33      | 7,499.00              | -3,105.37    | -305.81      | 3,118.54                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,200.00             | 90.00           | 180.33      | 7,499.00              | -3,205.37    | -306.40      | 3,218.37                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,300.00             | 90.00           | 180.33      | 7,499.00              | -3,305.37    | -306.98      | 3,318.21                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,400.00             | 90.00           | 180.33      | 7,499.00              | -3,405.37    | -307.56      | 3,418.04                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,500.00             | 90.00           | 180.33      | 7,499.00              | -3,505.36    | -308.15      | 3,517.87                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,600.00             | 90.00           | 180.33      | 7,499.00              | -3,605.36    | -308.73      | 3,617.70                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,700.00             | 90.00           | 180.33      | 7,499.00              | -3,705.36    | -309.31      | 3,717.54                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,800.00             | 90.00           | 180.33      | 7,499.00              | -3,805.36    | -309.90      | 3,817.37                | 0.00                    | 0.00                   | 0.00                  |  |
| 10,900.00             | 90.00           | 180.33      | 7,499.00              | -3,905.36    | -310.48      | 3,917.20                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,000.00             | 90.00           | 180.33      | 7,499.00              | -4,005.36    | -311.06      | 4,017.03                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,100.00             | 90.00           | 180.33      | 7,499.00              | -4,105.35    | -311.64      | 4,116.87                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,200.00             | 90.00           | 180.33      | 7,499.00              | -4,205.35    | -312.23      | 4,216.70                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,300.00             | 90.00           | 180.33      | 7,499.00              | -4,305.35    | -312.81      | 4,316.53                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,400.00             | 90.00           | 180.33      | 7,499.00              | -4,405.35    | -313.39      | 4,416.36                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,500.00             | 90.00           | 180.33      | 7,499.00              | -4,505.35    | -313.98      | 4,516.20                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,600.00             | 90.00           | 180.33      | 7,499.00              | -4,605.35    | -314.56      | 4,616.03                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,700.00             | 90.00           | 180.33      | 7,499.00              | -4,705.34    | -315.14      | 4,715.86                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,800.00             | 90.00           | 180.33      | 7,499.00              | -4,805.34    | -315.73      | 4,815.69                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,900.00             | 90.00           | 180.33      | 7,499.00              | -4,905.34    | -316.31      | 4,915.53                | 0.00                    | 0.00                   | 0.00                  |  |
| 11,959.31             | 90.00           | 180.33      | 7,499.00              | -4,964.65    | -316.66      | 4,974.74                | 0.00                    | 0.00                   | 0.00                  |  |
| PBHL/TD               |                 |             |                       |              |              |                         |                         |                        |                       |  |

| Design Targets            |               |              |            |              |              |                 |                |             |               |  |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------|---------------|--|
| Target Name               | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude    | Longitude     |  |
| - hit/miss target         |               |              |            |              |              |                 |                |             |               |  |
| - Shape                   |               |              |            |              |              |                 |                |             |               |  |
| Antico 34-3-12 PBHL 47    | 0.00          | 0.00         | 7,499.00   | -4,964.65    | -316.66      | 1,239,629.76    | 3,237,975.34   | 39.98803999 | -104.65069000 |  |
| - plan hits target center |               |              |            |              |              |                 |                |             |               |  |
| - Point                   |               |              |            |              |              |                 |                |             |               |  |

| Plan Annotations      |                       |                   |              |                              |  |
|-----------------------|-----------------------|-------------------|--------------|------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                              |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                      |  |
| 1,800.00              | 1,800.00              | 0.00              | 0.00         | KOP Begin 2°/100' build      |  |
| 2,000.00              | 1,999.84              | -5.43             | -4.38        | Begin 4.00° tangent section  |  |
| 6,957.02              | 6,944.78              | -274.50           | -221.57      | Begin 10°/100' build         |  |
| 7,033.02              | 7,020.02              | -282.52           | -228.04      | Begin 10°/100' build/turn    |  |
| 7,842.57              | 7,499.00              | -847.98           | -292.65      | Begin 90.00° lateral section |  |
| 11,959.31             | 7,499.00              | -4,964.65         | -316.66      | PBHL/TD                      |  |

# Planning Report - Geographic

|                  |                               |                                     |                           |
|------------------|-------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | DB Jul2216dt                  | <b>Local Co-ordinate Reference:</b> | Well Antico 34-03-12 (C)  |
| <b>Company:</b>  | Edge Energy LLC               | <b>TVD Reference:</b>               | RKB=5133+16 @ 5149.00usft |
| <b>Project:</b>  | Weld County, Colorado         | <b>MD Reference:</b>                | RKB=5133+16 @ 5149.00usft |
| <b>Site:</b>     | Sec34-T1N-R65W Sec03-T1S-R65W | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Antico 34-03-12 (C)           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Original Hole                 |                                     |                           |
| <b>Design:</b>   | rev0                          |                                     |                           |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | Weld County, Colorado     |                      |                |
| <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 Northern Zone    |                      |                |

|                       |           |                               |                   |                   |               |
|-----------------------|-----------|-------------------------------|-------------------|-------------------|---------------|
| Site                  |           | Sec34-T1N-R65W Sec03-T1S-R65W |                   |                   |               |
| Site Position:        |           | Northing:                     | 1,244,594.57 usft | Latitude:         | 40.00166000   |
| From:                 | Lat/Long  | Easting:                      | 3,238,306.00 usft | Longitude:        | -104.64934000 |
| Position Uncertainty: | 0.00 usft | Slot Radius:                  | 13-3/16 "         | Grid Convergence: | 0.55 °        |

|                      |  |           |                     |                   |               |               |
|----------------------|--|-----------|---------------------|-------------------|---------------|---------------|
| Well                 | Antico 34-03-12 (C), Surf Loc: 400 FSL 2441 FEL SW 1/4 SE 1/4 Sec34-T1N-R65W |           |                     |                   |               |               |
| Well Position        | +N/-S  | 0.00 usft | Northing:           | 1,244,594.42 usft | Latitude:     | 40.00165995   |
|                      | +E/-W  | 0.00 usft | Easting:            | 3,238,291.99 usft | Longitude:    | -104.64939000 |
| Position Uncertainty |  | 0.00 usft | Wellhead Elevation: | 0.00 usft         | Ground Level: | 5,133.00 usft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Original Hole     |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | HDGM              | 10/6/2016          | 8.33                   | 66.47                | 52,204                     |

|                          |                                |                     |                      |                      |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|
| <b>Design</b>            | rev0                           |                     |                      |                      |
| <b>Audit Notes:</b>      |                                |                     |                      |                      |
| <b>Version:</b>          | <b>Phase:</b>                  | PLAN                | <b>Tie On Depth:</b> | 0.00                 |
| <b>Vertical Section:</b> | <b>Depth From (TVD) (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b>  | <b>Direction (°)</b> |
|                          | 0.00                           | 0.00                | 0.00                 | 183.65               |

| <b>Plan Sections</b>  |                 |             |                       |              |              |                         |                        |                       |         |                     |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|------------------------|-----------------------|---------|---------------------|
| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) | TFO (°) | Target              |
| 0.00                  | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 1,800.00              | 0.00            | 0.00        | 1,800.00              | 0.00         | 0.00         | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 2,000.00              | 4.00            | 218.91      | 1,999.84              | -5.43        | -4.38        | 2.00                    | 2.00                   | 0.00                  | 218.91  |                     |
| 6,957.02              | 4.00            | 218.91      | 6,944.78              | -274.50      | -221.57      | 0.00                    | 0.00                   | 0.00                  | 0.00    |                     |
| 7,033.02              | 11.60           | 218.91      | 7,020.02              | -282.52      | -228.04      | 10.00                   | 10.00                  | 0.00                  | 0.00    |                     |
| 7,842.57              | 90.00           | 180.33      | 7,499.00              | -847.98      | -292.65      | 10.00                   | 9.68                   | -4.77                 | -39.15  |                     |
| 11,959.31             | 90.00           | 180.33      | 7,499.00              | -4,964.65    | -316.66      | 0.00                    | 0.00                   | 0.00                  | 0.00    | Antico 34-3-12 PBHL |

# Planning Report - Geographic

|                  |                               |                                     |                           |
|------------------|-------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | DB Jul2216dt                  | <b>Local Co-ordinate Reference:</b> | Well Antico 34-03-12 (C)  |
| <b>Company:</b>  | Edge Energy LLC               | <b>TVD Reference:</b>               | RKB=5133+16 @ 5149.00usft |
| <b>Project:</b>  | Weld County, Colorado         | <b>MD Reference:</b>                | RKB=5133+16 @ 5149.00usft |
| <b>Site:</b>     | Sec34-T1N-R65W Sec03-T1S-R65W | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Antico 34-03-12 (C)           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Original Hole                 |                                     |                           |
| <b>Design:</b>   | rev0                          |                                     |                           |

| Planned Survey              |                 |             |                       |              |              |                     |                    |             |               |
|-----------------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-------------|---------------|
| Measured Depth (usft)       | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude    | Longitude     |
| 0.00                        | 0.00            | 0.00        | 0.00                  | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 100.00                      | 0.00            | 0.00        | 100.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 200.00                      | 0.00            | 0.00        | 200.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 300.00                      | 0.00            | 0.00        | 300.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 400.00                      | 0.00            | 0.00        | 400.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 500.00                      | 0.00            | 0.00        | 500.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 600.00                      | 0.00            | 0.00        | 600.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 700.00                      | 0.00            | 0.00        | 700.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 800.00                      | 0.00            | 0.00        | 800.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 900.00                      | 0.00            | 0.00        | 900.00                | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,000.00                    | 0.00            | 0.00        | 1,000.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,100.00                    | 0.00            | 0.00        | 1,100.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,200.00                    | 0.00            | 0.00        | 1,200.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,300.00                    | 0.00            | 0.00        | 1,300.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,400.00                    | 0.00            | 0.00        | 1,400.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,500.00                    | 0.00            | 0.00        | 1,500.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,600.00                    | 0.00            | 0.00        | 1,600.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,700.00                    | 0.00            | 0.00        | 1,700.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| 1,800.00                    | 0.00            | 0.00        | 1,800.00              | 0.00         | 0.00         | 1,244,594.42        | 3,238,291.99       | 40.00165995 | -104.64939000 |
| KOP Begin 2°/100' build     |                 |             |                       |              |              |                     |                    |             |               |
| 1,900.00                    | 2.00            | 218.91      | 1,899.98              | -1.36        | -1.10        | 1,244,593.06        | 3,238,290.90       | 40.00165625 | -104.64939396 |
| 2,000.00                    | 4.00            | 218.91      | 1,999.84              | -5.43        | -4.38        | 1,244,588.99        | 3,238,287.61       | 40.00164515 | -104.64940583 |
| Begin 4.00° tangent section |                 |             |                       |              |              |                     |                    |             |               |
| 2,100.00                    | 4.00            | 218.91      | 2,099.59              | -10.86       | -8.76        | 1,244,583.56        | 3,238,283.23       | 40.00163037 | -104.64942165 |
| 2,200.00                    | 4.00            | 218.91      | 2,199.35              | -16.29       | -13.15       | 1,244,578.13        | 3,238,278.85       | 40.00161558 | -104.64943748 |
| 2,300.00                    | 4.00            | 218.91      | 2,299.11              | -21.71       | -17.53       | 1,244,572.70        | 3,238,274.47       | 40.00160080 | -104.64945330 |
| 2,400.00                    | 4.00            | 218.91      | 2,398.86              | -27.14       | -21.91       | 1,244,567.28        | 3,238,270.09       | 40.00158602 | -104.64946913 |
| 2,500.00                    | 4.00            | 218.91      | 2,498.62              | -32.57       | -26.29       | 1,244,561.85        | 3,238,265.70       | 40.00157123 | -104.64948495 |
| 2,600.00                    | 4.00            | 218.91      | 2,598.38              | -38.00       | -30.67       | 1,244,556.42        | 3,238,261.32       | 40.00155645 | -104.64950078 |
| 2,700.00                    | 4.00            | 218.91      | 2,698.13              | -43.43       | -35.05       | 1,244,550.99        | 3,238,256.94       | 40.00154166 | -104.64951660 |
| 2,800.00                    | 4.00            | 218.91      | 2,797.89              | -48.85       | -39.43       | 1,244,545.56        | 3,238,252.56       | 40.00152688 | -104.64953243 |
| 2,900.00                    | 4.00            | 218.91      | 2,897.65              | -54.28       | -43.82       | 1,244,540.14        | 3,238,248.18       | 40.00151209 | -104.64954825 |
| 3,000.00                    | 4.00            | 218.91      | 2,997.40              | -59.71       | -48.20       | 1,244,534.71        | 3,238,243.80       | 40.00149731 | -104.64956407 |
| 3,100.00                    | 4.00            | 218.91      | 3,097.16              | -65.14       | -52.58       | 1,244,529.28        | 3,238,239.42       | 40.00148252 | -104.64957990 |
| 3,200.00                    | 4.00            | 218.91      | 3,196.91              | -70.57       | -56.96       | 1,244,523.85        | 3,238,235.03       | 40.00146774 | -104.64959572 |
| 3,300.00                    | 4.00            | 218.91      | 3,296.67              | -75.99       | -61.34       | 1,244,518.42        | 3,238,230.65       | 40.00145295 | -104.64961155 |
| 3,400.00                    | 4.00            | 218.91      | 3,396.43              | -81.42       | -65.72       | 1,244,513.00        | 3,238,226.27       | 40.00143817 | -104.64962737 |
| 3,500.00                    | 4.00            | 218.91      | 3,496.18              | -86.85       | -70.10       | 1,244,507.57        | 3,238,221.89       | 40.00142338 | -104.64964320 |
| 3,600.00                    | 4.00            | 218.91      | 3,595.94              | -92.28       | -74.49       | 1,244,502.14        | 3,238,217.51       | 40.00140860 | -104.64965902 |
| 3,700.00                    | 4.00            | 218.91      | 3,695.70              | -97.71       | -78.87       | 1,244,496.71        | 3,238,213.13       | 40.00139381 | -104.64967485 |
| 3,800.00                    | 4.00            | 218.91      | 3,795.45              | -103.13      | -83.25       | 1,244,491.28        | 3,238,208.75       | 40.00137903 | -104.64969067 |
| 3,900.00                    | 4.00            | 218.91      | 3,895.21              | -108.56      | -87.63       | 1,244,485.86        | 3,238,204.36       | 40.00136424 | -104.64970650 |
| 4,000.00                    | 4.00            | 218.91      | 3,994.97              | -113.99      | -92.01       | 1,244,480.43        | 3,238,199.98       | 40.00134946 | -104.64972232 |
| 4,100.00                    | 4.00            | 218.91      | 4,094.72              | -119.42      | -96.39       | 1,244,475.00        | 3,238,195.60       | 40.00133467 | -104.64973815 |
| 4,200.00                    | 4.00            | 218.91      | 4,194.48              | -124.85      | -100.77      | 1,244,469.57        | 3,238,191.22       | 40.00131989 | -104.64975397 |
| 4,300.00                    | 4.00            | 218.91      | 4,294.23              | -130.27      | -105.16      | 1,244,464.14        | 3,238,186.84       | 40.00130510 | -104.64976980 |
| 4,400.00                    | 4.00            | 218.91      | 4,393.99              | -135.70      | -109.54      | 1,244,458.72        | 3,238,182.46       | 40.00129032 | -104.64978562 |
| 4,500.00                    | 4.00            | 218.91      | 4,493.75              | -141.13      | -113.92      | 1,244,453.29        | 3,238,178.08       | 40.00127553 | -104.64980144 |
| 4,600.00                    | 4.00            | 218.91      | 4,593.50              | -146.56      | -118.30      | 1,244,447.86        | 3,238,173.69       | 40.00126075 | -104.64981727 |
| 4,700.00                    | 4.00            | 218.91      | 4,693.26              | -151.99      | -122.68      | 1,244,442.43        | 3,238,169.31       | 40.00124596 | -104.64983309 |
| 4,800.00                    | 4.00            | 218.91      | 4,793.02              | -157.41      | -127.06      | 1,244,437.00        | 3,238,164.93       | 40.00123118 | -104.64984892 |
| 4,900.00                    | 4.00            | 218.91      | 4,892.77              | -162.84      | -131.44      | 1,244,431.58        | 3,238,160.55       | 40.00121639 | -104.64986474 |
| 5,000.00                    | 4.00            | 218.91      | 4,992.53              | -168.27      | -135.83      | 1,244,426.15        | 3,238,156.17       | 40.00120161 | -104.64988057 |
| 5,100.00                    | 4.00            | 218.91      | 5,092.29              | -173.70      | -140.21      | 1,244,420.72        | 3,238,151.79       | 40.00118683 | -104.64989639 |

# Planning Report - Geographic

|                  |                               |                                     |                           |
|------------------|-------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | DB Jul2216dt                  | <b>Local Co-ordinate Reference:</b> | Well Antico 34-03-12 (C)  |
| <b>Company:</b>  | Edge Energy LLC               | <b>TVD Reference:</b>               | RKB=5133+16 @ 5149.00usft |
| <b>Project:</b>  | Weld County, Colorado         | <b>MD Reference:</b>                | RKB=5133+16 @ 5149.00usft |
| <b>Site:</b>     | Sec34-T1N-R65W Sec03-T1S-R65W | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Antico 34-03-12 (C)           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Original Hole                 |                                     |                           |
| <b>Design:</b>   | rev0                          |                                     |                           |

| Planned Survey               |                 |             |                       |              |              |                     |                    |             |               |
|------------------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|-------------|---------------|
| Measured Depth (usft)        | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude    | Longitude     |
| 5,200.00                     | 4.00            | 218.91      | 5,192.04              | -179.13      | -144.59      | 1,244,415.29        | 3,238,147.41       | 40.00117204 | -104.64991222 |
| 5,300.00                     | 4.00            | 218.91      | 5,291.80              | -184.55      | -148.97      | 1,244,409.87        | 3,238,143.02       | 40.00115726 | -104.64992804 |
| 5,400.00                     | 4.00            | 218.91      | 5,391.56              | -189.98      | -153.35      | 1,244,404.44        | 3,238,138.64       | 40.00114247 | -104.64994387 |
| 5,500.00                     | 4.00            | 218.91      | 5,491.31              | -195.41      | -157.73      | 1,244,399.01        | 3,238,134.26       | 40.00112769 | -104.64995969 |
| 5,600.00                     | 4.00            | 218.91      | 5,591.07              | -200.84      | -162.11      | 1,244,393.58        | 3,238,129.88       | 40.00111290 | -104.64997551 |
| 5,700.00                     | 4.00            | 218.91      | 5,690.82              | -206.27      | -166.49      | 1,244,388.15        | 3,238,125.50       | 40.00109812 | -104.64999134 |
| 5,800.00                     | 4.00            | 218.91      | 5,790.58              | -211.69      | -170.88      | 1,244,382.73        | 3,238,121.12       | 40.00108333 | -104.65000716 |
| 5,900.00                     | 4.00            | 218.91      | 5,890.34              | -217.12      | -175.26      | 1,244,377.30        | 3,238,116.74       | 40.00106855 | -104.65002299 |
| 6,000.00                     | 4.00            | 218.91      | 5,990.09              | -222.55      | -179.64      | 1,244,371.87        | 3,238,112.35       | 40.00105376 | -104.65003881 |
| 6,100.00                     | 4.00            | 218.91      | 6,089.85              | -227.98      | -184.02      | 1,244,366.44        | 3,238,107.97       | 40.00103898 | -104.65005464 |
| 6,200.00                     | 4.00            | 218.91      | 6,189.61              | -233.41      | -188.40      | 1,244,361.01        | 3,238,103.59       | 40.00102419 | -104.65007046 |
| 6,300.00                     | 4.00            | 218.91      | 6,289.36              | -238.83      | -192.78      | 1,244,355.59        | 3,238,099.21       | 40.00100941 | -104.65008629 |
| 6,400.00                     | 4.00            | 218.91      | 6,389.12              | -244.26      | -197.16      | 1,244,350.16        | 3,238,094.83       | 40.00099462 | -104.65010211 |
| 6,500.00                     | 4.00            | 218.91      | 6,488.88              | -249.69      | -201.55      | 1,244,344.73        | 3,238,090.45       | 40.00097984 | -104.65011794 |
| 6,600.00                     | 4.00            | 218.91      | 6,588.63              | -255.12      | -205.93      | 1,244,339.30        | 3,238,086.07       | 40.00096505 | -104.65013376 |
| 6,700.00                     | 4.00            | 218.91      | 6,688.39              | -260.55      | -210.31      | 1,244,333.87        | 3,238,081.69       | 40.00095027 | -104.65014958 |
| 6,800.00                     | 4.00            | 218.91      | 6,788.15              | -265.97      | -214.69      | 1,244,328.45        | 3,238,077.30       | 40.00093548 | -104.65016541 |
| 6,900.00                     | 4.00            | 218.91      | 6,887.90              | -271.40      | -219.07      | 1,244,323.02        | 3,238,072.92       | 40.00092070 | -104.65018123 |
| 6,957.02                     | 4.00            | 218.91      | 6,944.78              | -274.50      | -221.57      | 1,244,319.92        | 3,238,070.42       | 40.00091227 | -104.65019026 |
| Begin 10°/100' build         |                 |             |                       |              |              |                     |                    |             |               |
| 7,000.00                     | 8.30            | 218.91      | 6,987.51              | -278.08      | -224.46      | 1,244,316.34        | 3,238,067.53       | 40.00090251 | -104.65020070 |
| 7,033.02                     | 11.60           | 218.91      | 7,020.02              | -282.52      | -228.04      | 1,244,311.90        | 3,238,063.95       | 40.00089042 | -104.65021364 |
| Begin 10°/100' build/turn    |                 |             |                       |              |              |                     |                    |             |               |
| 7,100.00                     | 17.31           | 204.58      | 7,084.88              | -296.84      | -236.43      | 1,244,297.58        | 3,238,055.57       | 40.00085134 | -104.65024406 |
| 7,200.00                     | 26.69           | 195.09      | 7,177.52              | -332.14      | -248.49      | 1,244,262.28        | 3,238,043.50       | 40.00075475 | -104.65028832 |
| 7,300.00                     | 36.38           | 190.34      | 7,262.66              | -383.13      | -259.69      | 1,244,211.29        | 3,238,032.31       | 40.00061507 | -104.65033003 |
| 7,400.00                     | 46.19           | 187.39      | 7,337.72              | -448.25      | -269.68      | 1,244,146.17        | 3,238,022.32       | 40.00043656 | -104.65036790 |
| 7,500.00                     | 56.06           | 185.28      | 7,400.41              | -525.54      | -278.15      | 1,244,068.88        | 3,238,013.84       | 40.00022463 | -104.65040080 |
| 7,600.00                     | 65.95           | 183.61      | 7,448.83              | -612.63      | -284.85      | 1,243,981.79        | 3,238,007.14       | 39.99998573 | -104.65042771 |
| 7,700.00                     | 75.86           | 182.18      | 7,481.50              | -706.89      | -289.59      | 1,243,887.53        | 3,238,002.41       | 39.99972710 | -104.65044782 |
| 7,800.00                     | 85.78           | 180.88      | 7,497.44              | -805.45      | -292.20      | 1,243,788.97        | 3,237,999.79       | 39.99945662 | -104.65046052 |
| 7,842.57                     | 90.00           | 180.33      | 7,499.00              | -847.98      | -292.65      | 1,243,746.43        | 3,237,999.34       | 39.99933988 | -104.65046358 |
| Begin 90.00° lateral section |                 |             |                       |              |              |                     |                    |             |               |
| 7,900.00                     | 90.00           | 180.33      | 7,499.00              | -905.41      | -292.98      | 1,243,689.01        | 3,237,999.01       | 39.99918225 | -104.65046674 |
| 8,000.00                     | 90.00           | 180.33      | 7,499.00              | -1,005.41    | -293.57      | 1,243,589.01        | 3,237,998.43       | 39.99890777 | -104.65047224 |
| 8,100.00                     | 90.00           | 180.33      | 7,499.00              | -1,105.41    | -294.15      | 1,243,489.01        | 3,237,997.84       | 39.99863328 | -104.65047774 |
| 8,200.00                     | 90.00           | 180.33      | 7,499.00              | -1,205.40    | -294.73      | 1,243,389.02        | 3,237,997.26       | 39.99835879 | -104.65048324 |
| 8,300.00                     | 90.00           | 180.33      | 7,499.00              | -1,305.40    | -295.32      | 1,243,289.02        | 3,237,996.68       | 39.99808431 | -104.65048874 |
| 8,400.00                     | 90.00           | 180.33      | 7,499.00              | -1,405.40    | -295.90      | 1,243,189.02        | 3,237,996.09       | 39.99780982 | -104.65049424 |
| 8,500.00                     | 90.00           | 180.33      | 7,499.00              | -1,505.40    | -296.48      | 1,243,089.02        | 3,237,995.51       | 39.99753534 | -104.65049974 |
| 8,600.00                     | 90.00           | 180.33      | 7,499.00              | -1,605.40    | -297.07      | 1,242,989.02        | 3,237,994.93       | 39.99726085 | -104.65050524 |
| 8,700.00                     | 90.00           | 180.33      | 7,499.00              | -1,705.40    | -297.65      | 1,242,889.02        | 3,237,994.34       | 39.99698636 | -104.65051074 |
| 8,800.00                     | 90.00           | 180.33      | 7,499.00              | -1,805.39    | -298.23      | 1,242,789.03        | 3,237,993.76       | 39.99671188 | -104.65051624 |
| 8,900.00                     | 90.00           | 180.33      | 7,499.00              | -1,905.39    | -298.82      | 1,242,689.03        | 3,237,993.18       | 39.99643739 | -104.65052174 |
| 9,000.00                     | 90.00           | 180.33      | 7,499.00              | -2,005.39    | -299.40      | 1,242,589.03        | 3,237,992.59       | 39.99616291 | -104.65052724 |
| 9,100.00                     | 90.00           | 180.33      | 7,499.00              | -2,105.39    | -299.98      | 1,242,489.03        | 3,237,992.01       | 39.99588842 | -104.65053274 |
| 9,200.00                     | 90.00           | 180.33      | 7,499.00              | -2,205.39    | -300.57      | 1,242,389.03        | 3,237,991.43       | 39.99561393 | -104.65053824 |
| 9,300.00                     | 90.00           | 180.33      | 7,499.00              | -2,305.38    | -301.15      | 1,242,289.03        | 3,237,990.85       | 39.99533945 | -104.65054374 |
| 9,400.00                     | 90.00           | 180.33      | 7,499.00              | -2,405.38    | -301.73      | 1,242,189.04        | 3,237,990.26       | 39.99506496 | -104.65054924 |
| 9,500.00                     | 90.00           | 180.33      | 7,499.00              | -2,505.38    | -302.31      | 1,242,089.04        | 3,237,989.68       | 39.99479047 | -104.65055474 |
| 9,600.00                     | 90.00           | 180.33      | 7,499.00              | -2,605.38    | -302.90      | 1,241,989.04        | 3,237,989.10       | 39.99451599 | -104.65056024 |
| 9,700.00                     | 90.00           | 180.33      | 7,499.00              | -2,705.38    | -303.48      | 1,241,889.04        | 3,237,988.51       | 39.99424150 | -104.65056574 |
| 9,800.00                     | 90.00           | 180.33      | 7,499.00              | -2,805.38    | -304.06      | 1,241,789.04        | 3,237,987.93       | 39.99396701 | -104.65057124 |
| 9,900.00                     | 90.00           | 180.33      | 7,499.00              | -2,905.37    | -304.65      | 1,241,689.04        | 3,237,987.35       | 39.99369253 | -104.65057674 |



# Planning Report - Geographic

|                  |                               |                                     |                           |
|------------------|-------------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | DB Jul2216dt                  | <b>Local Co-ordinate Reference:</b> | Well Antico 34-03-12 (C)  |
| <b>Company:</b>  | Edge Energy LLC               | <b>TVD Reference:</b>               | RKB=5133+16 @ 5149.00usft |
| <b>Project:</b>  | Weld County, Colorado         | <b>MD Reference:</b>                | RKB=5133+16 @ 5149.00usft |
| <b>Site:</b>     | Sec34-T1N-R65W Sec03-T1S-R65W | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Antico 34-03-12 (C)           | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Original Hole                 |                                     |                           |
| <b>Design:</b>   | rev0                          |                                     |                           |

| Planned Survey              |                    |                |                             |                 |                 |                           |                          |             |               |  |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|-------------|---------------|--|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude    | Longitude     |  |
| 10,000.00                   | 90.00              | 180.33         | 7,499.00                    | -3,005.37       | -305.23         | 1,241,589.05              | 3,237,986.76             | 39.99341804 | -104.65058224 |  |
| 10,100.00                   | 90.00              | 180.33         | 7,499.00                    | -3,105.37       | -305.81         | 1,241,489.05              | 3,237,986.18             | 39.99314356 | -104.65058774 |  |
| 10,200.00                   | 90.00              | 180.33         | 7,499.00                    | -3,205.37       | -306.40         | 1,241,389.05              | 3,237,985.60             | 39.99286907 | -104.65059324 |  |
| 10,300.00                   | 90.00              | 180.33         | 7,499.00                    | -3,305.37       | -306.98         | 1,241,289.05              | 3,237,985.01             | 39.99259458 | -104.65059874 |  |
| 10,400.00                   | 90.00              | 180.33         | 7,499.00                    | -3,405.37       | -307.56         | 1,241,189.05              | 3,237,984.43             | 39.99232010 | -104.65060424 |  |
| 10,500.00                   | 90.00              | 180.33         | 7,499.00                    | -3,505.36       | -308.15         | 1,241,089.05              | 3,237,983.85             | 39.99204561 | -104.65060974 |  |
| 10,600.00                   | 90.00              | 180.33         | 7,499.00                    | -3,605.36       | -308.73         | 1,240,989.06              | 3,237,983.26             | 39.99177112 | -104.65061524 |  |
| 10,700.00                   | 90.00              | 180.33         | 7,499.00                    | -3,705.36       | -309.31         | 1,240,889.06              | 3,237,982.68             | 39.99149664 | -104.65062074 |  |
| 10,800.00                   | 90.00              | 180.33         | 7,499.00                    | -3,805.36       | -309.90         | 1,240,789.06              | 3,237,982.10             | 39.99122215 | -104.65062624 |  |
| 10,900.00                   | 90.00              | 180.33         | 7,499.00                    | -3,905.36       | -310.48         | 1,240,689.06              | 3,237,981.52             | 39.99094767 | -104.65063174 |  |
| 11,000.00                   | 90.00              | 180.33         | 7,499.00                    | -4,005.36       | -311.06         | 1,240,589.06              | 3,237,980.93             | 39.99067318 | -104.65063724 |  |
| 11,100.00                   | 90.00              | 180.33         | 7,499.00                    | -4,105.35       | -311.64         | 1,240,489.06              | 3,237,980.35             | 39.99039869 | -104.65064274 |  |
| 11,200.00                   | 90.00              | 180.33         | 7,499.00                    | -4,205.35       | -312.23         | 1,240,389.07              | 3,237,979.77             | 39.99012421 | -104.65064824 |  |
| 11,300.00                   | 90.00              | 180.33         | 7,499.00                    | -4,305.35       | -312.81         | 1,240,289.07              | 3,237,979.18             | 39.98984972 | -104.65065374 |  |
| 11,400.00                   | 90.00              | 180.33         | 7,499.00                    | -4,405.35       | -313.39         | 1,240,189.07              | 3,237,978.60             | 39.98957523 | -104.65065924 |  |
| 11,500.00                   | 90.00              | 180.33         | 7,499.00                    | -4,505.35       | -313.98         | 1,240,089.07              | 3,237,978.02             | 39.98930075 | -104.65066474 |  |
| 11,600.00                   | 90.00              | 180.33         | 7,499.00                    | -4,605.35       | -314.56         | 1,239,989.07              | 3,237,977.43             | 39.98902626 | -104.65067024 |  |
| 11,700.00                   | 90.00              | 180.33         | 7,499.00                    | -4,705.34       | -315.14         | 1,239,889.07              | 3,237,976.85             | 39.98875177 | -104.65067574 |  |
| 11,800.00                   | 90.00              | 180.33         | 7,499.00                    | -4,805.34       | -315.73         | 1,239,789.08              | 3,237,976.27             | 39.98847729 | -104.65068124 |  |
| 11,900.00                   | 90.00              | 180.33         | 7,499.00                    | -4,905.34       | -316.31         | 1,239,689.08              | 3,237,975.68             | 39.98820280 | -104.65068673 |  |
| 11,959.31                   | 90.00              | 180.33         | 7,499.00                    | -4,964.65       | -316.66         | 1,239,629.76              | 3,237,975.34             | 39.98803999 | -104.65069000 |  |
| PBHL/TD                     |                    |                |                             |                 |                 |                           |                          |             |               |  |

| Design Targets            |               |              |            |              |              |                 |                |             |               |  |
|---------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-------------|---------------|--|
| Target Name               | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude    | Longitude     |  |
| - hit/miss target         |               |              |            |              |              |                 |                |             |               |  |
| - Shape                   |               |              |            |              |              |                 |                |             |               |  |
| Antico 34-3-12 PBHL 47    | 0.00          | 0.00         | 7,499.00   | -4,964.65    | -316.66      | 1,239,629.76    | 3,237,975.34   | 39.98803999 | -104.65069000 |  |
| - plan hits target center |               |              |            |              |              |                 |                |             |               |  |
| - Point                   |               |              |            |              |              |                 |                |             |               |  |

| Plan Annotations      |                       |                   |              |                              |  |
|-----------------------|-----------------------|-------------------|--------------|------------------------------|--|
| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              |                              |  |
|                       |                       | +N/-S (usft)      | +E/-W (usft) | Comment                      |  |
| 1,800.00              | 1,800.00              | 0.00              | 0.00         | KOP Begin 2°/100' build      |  |
| 2,000.00              | 1,999.84              | -5.43             | -4.38        | Begin 4.00° tangent section  |  |
| 6,957.02              | 6,944.78              | -274.50           | -221.57      | Begin 10°/100' build         |  |
| 7,033.02              | 7,020.02              | -282.52           | -228.04      | Begin 10°/100' build/turn    |  |
| 7,842.57              | 7,499.00              | -847.98           | -292.65      | Begin 90.00° lateral section |  |
| 11,959.31             | 7,499.00              | -4,964.65         | -316.66      | PBHL/TD                      |  |