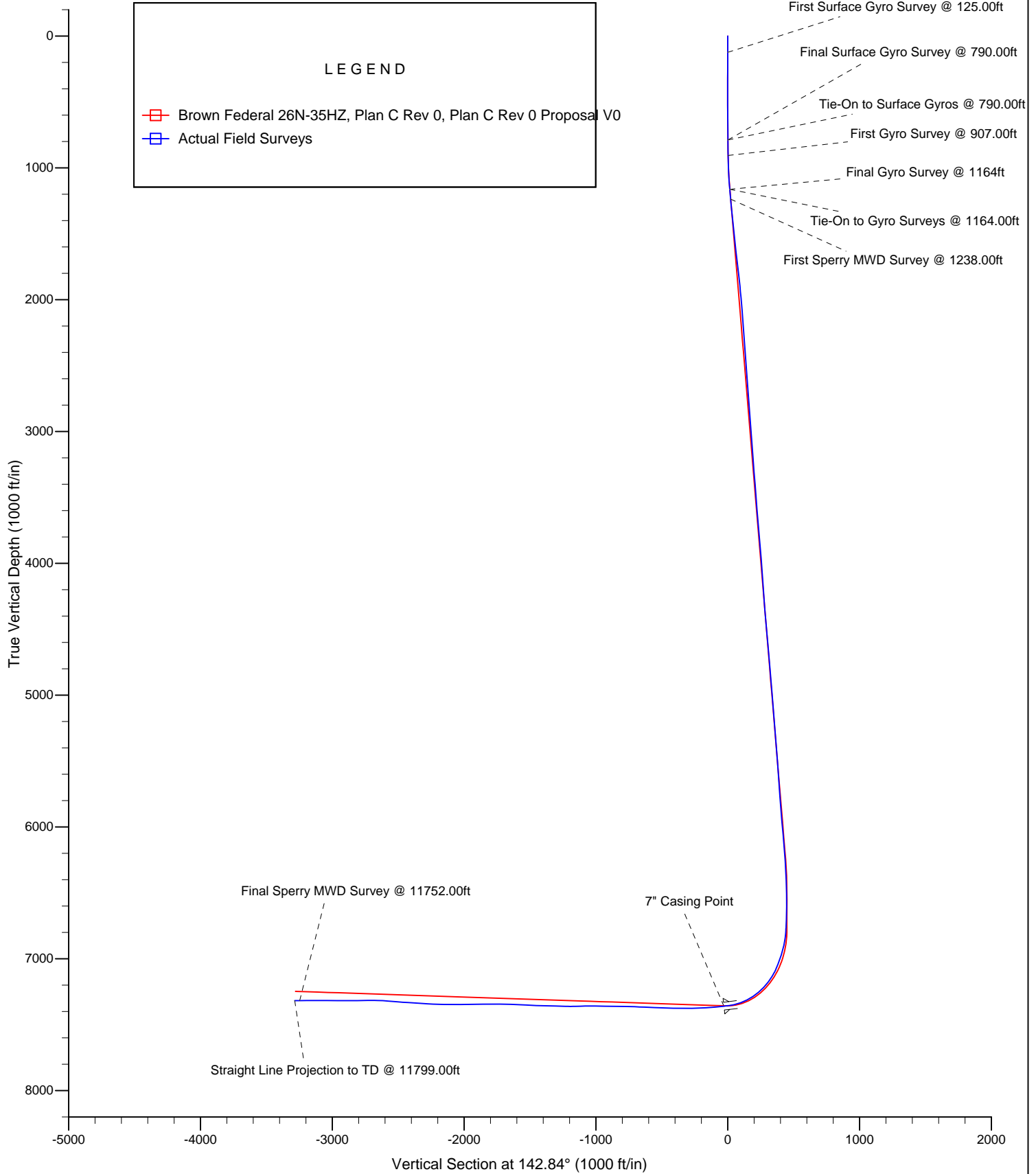


Project: Weld County, CO (NAD 83)  
Site: Sec. 35-T3N-R66W  
Well: Brown Federal 26N-35HZ

# Anadarko Petroleum Corp.

**HALLIBURTON**  
Sperry Drilling



# **Anadarko Petroleum Corp.**

**Weld County, CO (NAD 83)**

**Sec. 35-T3N-R66W**

**Brown Federal 26N-35HZ**

**Plan C Rev 0**

**Design: Actual Field Surveys**

## **Survey Report - Geographic**

**24 May, 2012**

# Halliburton Company

## Survey Report - Geographic

|                  |                          |                                     |                             |
|------------------|--------------------------|-------------------------------------|-----------------------------|
| <b>Company:</b>  | Anadarko Petroleum Corp. | <b>Local Co-ordinate Reference:</b> | Well Brown Federal 26N-35HZ |
| <b>Project:</b>  | Weld County, CO (NAD 83) | <b>TVD Reference:</b>               | RKB=25' @ 5078.00ft (HP308) |
| <b>Site:</b>     | Sec. 35-T3N-R66W         | <b>MD Reference:</b>                | RKB=25' @ 5078.00ft (HP308) |
| <b>Well:</b>     | Brown Federal 26N-35HZ   | <b>North Reference:</b>             | True                        |
| <b>Wellbore:</b> | Plan C Rev 0             | <b>Survey Calculation Method:</b>   | Minimum Curvature           |
| <b>Design:</b>   | Actual Field Surveys     | <b>Database:</b>                    | EDM 2003.16 Single User Db  |

|                    |                           |                      |                             |
|--------------------|---------------------------|----------------------|-----------------------------|
| <b>Project</b>     | Weld County, CO (NAD 83)  |                      |                             |
| <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    |                      | Using geodetic scale factor |

| Site                  |          | Sec. 35-T3N-R66W |                    |                   |             |
|-----------------------|----------|------------------|--------------------|-------------------|-------------|
| Site Position:        |          | Northing:        | 1,307,923.461379ft | Latitude:         | 40.176226   |
| From:                 | Lat/Long | Easting:         | 3,208,983.578973ft | Longitude:        | -104.752098 |
| Position Uncertainty: | 0.00 ft  | Slot Radius:     | "                  | Grid Convergence: | 0.48 °      |

| Well                 | Brown Federal 26N-35HZ |         |                     |                     |               |             |
|----------------------|------------------------|---------|---------------------|---------------------|---------------|-------------|
| Well Position        | +N/-S                  | 0.00 ft | Northing:           | 1,307,836.356420 ft | Latitude:     | 40.175888   |
|                      | +E/-W                  | 0.00 ft | Easting:            | 3,213,233.989950 ft | Longitude:    | -104.736890 |
| Position Uncertainty |                        | 0.00 ft | Wellhead Elevation: | ft                  | Ground Level: | 5,053.00 ft |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Plan C Rev 0      |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | BGGM2011          | 2012-04-19         | 8.70                   | 66.83                | 52,876                     |

| Design            | Actual Field Surveys     |               |               |                    |
|-------------------|--------------------------|---------------|---------------|--------------------|
| Audit Notes:      |                          |               |               |                    |
| Version:          | 1.0                      | Phase:        | ACTUAL        | Tie On Depth: 0.00 |
| Vertical Section: | Depth From (TVD)<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Direction<br>(°)   |
|                   | 7,248.00                 | 0.00          | 0.00          | 3.64               |

|                       |                |  |                  |                                  |  |
|-----------------------|----------------|--|------------------|----------------------------------|--|
| <b>Survey Program</b> | <b>Date</b>    | 2012-05-24                               |                  |                                  |  |
| <b>From (ft)</b>      | <b>To (ft)</b> | <b>Survey (Wellbore)</b>                 | <b>Tool Name</b> | <b>Description</b>               |  |
| 125.00                | 790.00         | Anadarko Supplied Surveys (Plan C Rev 0) | NS-GYRO-MS       | North sensing gyrocompassing m/s |  |
| 907.00                | 1,164.00       | Gyro Surveys (Plan C Rev 0)              | NS-GYRO-MS       | North sensing gyrocompassing m/s |  |
| 1,238.00              | 11,799.00      | Sperry MWD Surveys (Plan C Rev 0)        | MWD              | MWD - Standard                   |  |

# Halliburton Company

## Survey Report - Geographic

|                  |                          |                                     |                             |
|------------------|--------------------------|-------------------------------------|-----------------------------|
| <b>Company:</b>  | Anadarko Petroleum Corp. | <b>Local Co-ordinate Reference:</b> | Well Brown Federal 26N-35HZ |
| <b>Project:</b>  | Weld County, CO (NAD 83) | <b>TVD Reference:</b>               | RKB=25' @ 5078.00ft (HP308) |
| <b>Site:</b>     | Sec. 35-T3N-R66W         | <b>MD Reference:</b>                | RKB=25' @ 5078.00ft (HP308) |
| <b>Well:</b>     | Brown Federal 26N-35HZ   | <b>North Reference:</b>             | True                        |
| <b>Wellbore:</b> | Plan C Rev 0             | <b>Survey Calculation Method:</b>   | Minimum Curvature           |
| <b>Design:</b>   | Actual Field Surveys     | <b>Database:</b>                    | EDM 2003.16 Single User Db  |

### Survey

| Measured Depth (ft)  | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (ft) | Map Easting (ft) | Latitude  | Longitude   |
|--|-----------------|-------------|---------------------|------------|------------|-------------------|------------------|-----------|-------------|
| 0.00   | 0.00            | 0.00        | 0.00                | 0.00       | 0.00       | 07,836.356420     | 13,233.989950    | 40.175888 | -104.736890 |
| 125.00   | 0.16            | 221.07      | 125.00              | -0.13      | -0.11      | 07,836.223862     | 13,233.876427    | 40.175888 | -104.736890 |
| <b>First Surface Gyro Survey @ 125.00ft</b>                                      |                 |             |                     |            |            |                   |                  |           |             |
| 225.00   | 0.04            | 327.20      | 225.00              | -0.21      | -0.23      | 07,836.146992     | 13,233.766448    | 40.175887 | -104.736891 |
| 325.00   | 0.19            | 344.43      | 325.00              | -0.02      | -0.29      | 07,836.335495     | 13,233.701412    | 40.175888 | -104.736891 |
| 425.00   | 0.11            | 112.98      | 425.00              | 0.10       | -0.24      | 07,836.458107     | 13,233.744227    | 40.175888 | -104.736891 |
| 525.00   | 0.15            | 129.92      | 525.00              | -0.02      | -0.06      | 07,836.338264     | 13,233.934025    | 40.175888 | -104.736890 |
| 625.00   | 0.28            | 167.42      | 625.00              | -0.34      | 0.10       | 07,836.017132     | 13,234.090399    | 40.175887 | -104.736890 |
| 725.00   | 0.76            | 183.14      | 724.99              | -1.24      | 0.11       | 07,835.116654     | 13,234.115040    | 40.175884 | -104.736890 |
| 790.00   | 1.18            | 204.65      | 789.98              | -2.28      | -0.19      | 07,834.075391     | 13,233.821245    | 40.175882 | -104.736891 |
| <b>Tie-On to Surface Gyros @ 790.00ft - Final Surface Gyro Survey @ 790.00ft</b> |                 |             |                     |            |            |                   |                  |           |             |
| 907.00   | 1.09            | 197.94      | 906.96              | -4.43      | -1.03      | 07,831.914618     | 13,232.994610    | 40.175876 | -104.736894 |
| <b>First Gyro Survey @ 907.00ft</b>  |                 |             |                     |            |            |                   |                  |           |             |
| 938.00   | 1.44            | 186.53      | 937.95              | -5.10      | -1.17      | 07,831.245996     | 13,232.865246    | 40.175874 | -104.736894 |
| 954.00   | 1.59            | 166.92      | 953.95              | -5.52      | -1.14      | 07,830.830307     | 13,232.896196    | 40.175873 | -104.736894 |
| 984.00   | 2.67            | 161.25      | 983.93              | -6.58      | -0.82      | 07,829.766025     | 13,233.224162    | 40.175870 | -104.736893 |
| 1,014.00   | 2.98            | 162.11      | 1,013.89            | -7.99      | -0.36      | 07,828.366353     | 13,233.700363    | 40.175866 | -104.736891 |
| 1,044.00   | 2.59            | 161.82      | 1,043.86            | -9.37      | 0.09       | 07,826.984241     | 13,234.163292    | 40.175862 | -104.736890 |
| 1,074.00   | 2.98            | 136.57      | 1,073.82            | -10.58     | 0.84       | 07,825.780417     | 13,234.921259    | 40.175859 | -104.736887 |
| 1,104.00   | 4.17            | 134.23      | 1,103.76            | -11.91     | 2.16       | 07,824.464668     | 13,236.250282    | 40.175855 | -104.736882 |
| 1,134.00   | 4.52            | 131.12      | 1,133.68            | -13.45     | 3.83       | 07,822.940939     | 13,237.935480    | 40.175851 | -104.736876 |
| 1,164.00   | 4.52            | 134.12      | 1,163.58            | -15.05     | 5.57       | 07,821.355692     | 13,239.688250    | 40.175847 | -104.736870 |
| <b>Final Gyro Survey @ 1164ft - Tie-On to Gyro Surveys @ 1164.00ft</b>           |                 |             |                     |            |            |                   |                  |           |             |
| 1,238.00   | 5.77            | 133.59      | 1,237.28            | -19.64     | 10.36      | 07,816.802374     | 13,244.515078    | 40.175834 | -104.736853 |
| <b>First Sperry MWD Survey @ 1238.00ft</b>                                       |                 |             |                     |            |            |                   |                  |           |             |
| 1,268.00   | 5.64            | 132.42      | 1,267.13            | -21.68     | 12.54      | 07,814.787108     | 13,246.712924    | 40.175828 | -104.736845 |
| 1,358.00   | 5.23            | 127.94      | 1,356.73            | -27.18     | 19.04      | 07,809.338175     | 13,253.259623    | 40.175813 | -104.736822 |
| 1,448.00   | 6.34            | 140.16      | 1,446.27            | -33.52     | 25.46      | 07,803.055876     | 13,259.732649    | 40.175796 | -104.736799 |
| 1,539.00   | 6.11            | 137.78      | 1,536.74            | -40.97     | 31.93      | 07,795.667651     | 13,266.269467    | 40.175775 | -104.736776 |
| 1,630.00   | 6.48            | 149.60      | 1,627.19            | -48.98     | 37.78      | 07,787.702793     | 13,272.191051    | 40.175753 | -104.736755 |
| 1,720.00   | 6.59            | 148.16      | 1,716.61            | -57.75     | 43.08      | 07,778.981472     | 13,277.560453    | 40.175729 | -104.736736 |
| 1,811.00   | 6.53            | 146.06      | 1,807.01            | -66.48     | 48.72      | 07,770.301897     | 13,283.278860    | 40.175705 | -104.736716 |
| 1,901.00   | 6.23            | 138.91      | 1,896.46            | -74.41     | 54.79      | 07,762.428442     | 13,289.413533    | 40.175684 | -104.736694 |
| 1,991.00   | 4.93            | 154.24      | 1,986.03            | -81.57     | 59.68      | 07,755.306965     | 13,294.365566    | 40.175664 | -104.736676 |
| 2,081.00   | 5.17            | 159.04      | 2,075.68            | -88.84     | 62.81      | 07,748.064841     | 13,297.559143    | 40.175644 | -104.736665 |
| 2,176.00   | 4.31            | 143.76      | 2,170.36            | -95.72     | 66.45      | 07,741.220087     | 13,301.259696    | 40.175625 | -104.736652 |
| 2,271.00   | 3.96            | 146.99      | 2,265.11            | -101.35    | 70.35      | 07,735.624045     | 13,305.205269    | 40.175610 | -104.736638 |
| 2,366.00   | 3.66            | 152.16      | 2,359.90            | -106.78    | 73.55      | 07,730.219958     | 13,308.454909    | 40.175595 | -104.736627 |
| 2,461.00   | 4.44            | 126.33      | 2,454.67            | -111.64    | 77.93      | 07,725.397807     | 13,312.875292    | 40.175581 | -104.736611 |
| 2,556.00   | 3.95            | 124.26      | 2,549.42            | -115.66    | 83.60      | 07,721.426336     | 13,318.576257    | 40.175570 | -104.736591 |
| 2,651.00   | 4.24            | 132.23      | 2,644.18            | -119.86    | 88.90      | 07,717.269892     | 13,323.916786    | 40.175559 | -104.736572 |
| 2,746.00   | 5.06            | 140.72      | 2,738.87            | -125.46    | 94.16      | 07,711.712120     | 13,329.217511    | 40.175543 | -104.736553 |
| 2,841.00   | 4.51            | 140.71      | 2,833.53            | -131.60    | 99.17      | 07,705.622086     | 13,334.287536    | 40.175527 | -104.736535 |
| 2,936.00   | 4.44            | 138.01      | 2,928.24            | -137.22    | 104.00     | 07,700.040153     | 13,339.160834    | 40.175511 | -104.736518 |
| 3,032.00   | 4.28            | 142.22      | 3,023.97            | -142.82    | 108.68     | 07,694.487637     | 13,343.889176    | 40.175496 | -104.736501 |
| 3,127.00   | 4.04            | 142.13      | 3,118.72            | -148.26    | 112.90     | 07,689.080849     | 13,348.161771    | 40.175481 | -104.736486 |
| 3,222.00   | 3.72            | 144.53      | 3,213.50            | -153.41    | 116.75     | 07,683.962650     | 13,352.048454    | 40.175467 | -104.736472 |
| 3,317.00   | 4.45            | 130.90      | 3,308.26            | -158.33    | 121.32     | 07,679.079281     | 13,356.664624    | 40.175453 | -104.736456 |
| 3,412.00   | 5.03            | 127.83      | 3,402.93            | -163.30    | 127.40     | 07,674.164587     | 13,362.782034    | 40.175440 | -104.736434 |
| 3,506.00   | 4.14            | 127.48      | 3,496.63            | -167.89    | 133.34     | 07,669.623993     | 13,368.768628    | 40.175427 | -104.736413 |
| 3,601.00   | 5.41            | 120.62      | 3,591.30            | -172.26    | 139.92     | 07,665.313056     | 13,375.381264    | 40.175415 | -104.736389 |
| 3,697.00   | 5.10            | 129.85      | 3,686.90            | -177.30    | 147.09     | 07,660.335849     | 13,382.594549    | 40.175401 | -104.736364 |
| 3,793.00   | 5.36            | 145.33      | 3,782.50            | -183.72    | 152.92     | 07,653.964310     | 13,388.476104    | 40.175384 | -104.736343 |
| 3,888.00   | 3.83            | 143.70      | 3,877.20            | -189.93    | 157.32     | 07,647.795965     | 13,392.931840    | 40.175367 | -104.736327 |

# Halliburton Company

## Survey Report - Geographic

|                  |                          |                                     |                             |
|------------------|--------------------------|-------------------------------------|-----------------------------|
| <b>Company:</b>  | Anadarko Petroleum Corp. | <b>Local Co-ordinate Reference:</b> | Well Brown Federal 26N-35HZ |
| <b>Project:</b>  | Weld County, CO (NAD 83) | <b>TVD Reference:</b>               | RKB=25' @ 5078.00ft (HP308) |
| <b>Site:</b>     | Sec. 35-T3N-R66W         | <b>MD Reference:</b>                | RKB=25' @ 5078.00ft (HP308) |
| <b>Well:</b>     | Brown Federal 26N-35HZ   | <b>North Reference:</b>             | True                        |
| <b>Wellbore:</b> | Plan C Rev 0             | <b>Survey Calculation Method:</b>   | Minimum Curvature           |
| <b>Design:</b>   | Actual Field Surveys     | <b>Database:</b>                    | EDM 2003.16 Single User Db  |

### Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (ft) | Map Easting (ft) | Latitude  | Longitude   |
|---------------------|-----------------|-------------|---------------------|------------|------------|-------------------|------------------|-----------|-------------|
| 3,983.00            | 4.77            | 149.39      | 3,971.93            | -195.89    | 161.21     | 07,641.873173     | 13,396.872513    | 40.175350 | -104.736313 |
| 4,077.00            | 3.70            | 155.60      | 4,065.67            | -202.01    | 164.45     | 07,635.775515     | 13,400.168128    | 40.175333 | -104.736302 |
| 4,172.00            | 4.85            | 145.07      | 4,160.41            | -208.10    | 168.02     | 07,629.722353     | 13,403.786123    | 40.175317 | -104.736289 |
| 4,267.00            | 4.43            | 148.29      | 4,255.09            | -214.51    | 172.25     | 07,623.345429     | 13,408.068944    | 40.175299 | -104.736274 |
| 4,362.00            | 3.98            | 140.72      | 4,349.84            | -220.18    | 176.26     | 07,617.707119     | 13,412.133270    | 40.175283 | -104.736259 |
| 4,457.00            | 4.65            | 132.82      | 4,444.57            | -225.35    | 181.17     | 07,612.580340     | 13,417.089270    | 40.175269 | -104.736242 |
| 4,552.00            | 5.54            | 138.24      | 4,539.19            | -231.39    | 187.05     | 07,606.593248     | 13,423.019542    | 40.175253 | -104.736221 |
| 4,646.00            | 5.18            | 134.77      | 4,632.78            | -237.76    | 193.09     | 07,600.272541     | 13,429.108463    | 40.175235 | -104.736199 |
| 4,741.00            | 4.66            | 133.38      | 4,727.43            | -243.44    | 198.94     | 07,594.652520     | 13,435.006238    | 40.175220 | -104.736178 |
| 4,836.00            | 5.12            | 139.30      | 4,822.09            | -249.30    | 204.51     | 07,588.836601     | 13,440.625365    | 40.175204 | -104.736158 |
| 4,932.00            | 4.97            | 143.03      | 4,917.72            | -255.87    | 209.80     | 07,582.312717     | 13,445.975708    | 40.175185 | -104.736139 |
| 5,028.00            | 4.16            | 133.74      | 5,013.41            | -261.60    | 214.82     | 07,576.626363     | 13,451.041342    | 40.175170 | -104.736121 |
| 5,123.00            | 5.29            | 150.84      | 5,108.09            | -267.81    | 219.44     | 07,570.459476     | 13,455.718100    | 40.175153 | -104.736105 |
| 5,219.00            | 4.97            | 154.91      | 5,203.71            | -275.44    | 223.36     | 07,562.863130     | 13,459.703125    | 40.175132 | -104.736091 |
| 5,314.00            | 4.44            | 157.20      | 5,298.39            | -282.55    | 226.53     | 07,555.774196     | 13,462.934101    | 40.175112 | -104.736079 |
| 5,409.00            | 4.18            | 159.73      | 5,393.12            | -289.19    | 229.16     | 07,549.159538     | 13,465.615485    | 40.175094 | -104.736070 |
| 5,504.00            | 4.27            | 146.12      | 5,487.86            | -295.38    | 232.33     | 07,543.003115     | 13,468.839564    | 40.175077 | -104.736059 |
| 5,599.00            | 3.81            | 143.17      | 5,582.63            | -300.84    | 236.19     | 07,537.574233     | 13,472.749846    | 40.175062 | -104.736045 |
| 5,695.00            | 4.76            | 138.86      | 5,678.36            | -306.39    | 240.72     | 07,532.060877     | 13,477.329826    | 40.175047 | -104.736029 |
| 5,790.00            | 3.91            | 140.40      | 5,773.09            | -311.86    | 245.38     | 07,526.637126     | 13,482.034396    | 40.175032 | -104.736012 |
| 5,885.00            | 4.87            | 132.68      | 5,867.81            | -317.09    | 250.41     | 07,521.451300     | 13,487.108290    | 40.175017 | -104.735994 |
| 5,980.00            | 4.21            | 130.67      | 5,962.51            | -322.09    | 256.02     | 07,516.493713     | 13,492.760372    | 40.175004 | -104.735974 |
| 6,075.00            | 5.15            | 130.08      | 6,057.19            | -327.11    | 261.93     | 07,511.527044     | 13,498.710487    | 40.174990 | -104.735953 |
| 6,171.00            | 4.90            | 141.17      | 6,152.82            | -333.08    | 267.79     | 07,505.609758     | 13,504.629030    | 40.174974 | -104.735932 |
| 6,265.00            | 4.28            | 144.49      | 6,246.52            | -339.06    | 272.35     | 07,499.666679     | 13,509.234798    | 40.174957 | -104.735915 |
| 6,360.00            | 3.70            | 138.86      | 6,341.29            | -344.25    | 276.42     | 07,494.507977     | 13,513.354947    | 40.174943 | -104.735901 |
| 6,456.00            | 0.91            | 176.39      | 6,437.21            | -347.35    | 278.51     | 07,491.431862     | 13,515.467776    | 40.174934 | -104.735893 |
| 6,550.00            | 0.49            | 211.31      | 6,531.20            | -348.44    | 278.35     | 07,490.342172     | 13,515.315276    | 40.174931 | -104.735894 |
| 6,646.00            | 1.10            | 346.64      | 6,627.20            | -347.89    | 277.92     | 07,490.884316     | 13,514.884342    | 40.174933 | -104.735895 |
| 6,741.00            | 1.16            | 337.71      | 6,722.18            | -346.11    | 277.35     | 07,492.656181     | 13,514.293655    | 40.174938 | -104.735898 |
| 6,773.00            | 1.38            | 339.98      | 6,754.17            | -345.45    | 277.09     | 07,493.315691     | 13,514.033205    | 40.174940 | -104.735898 |
| 6,804.00            | 3.43            | 348.61      | 6,785.14            | -344.19    | 276.78     | 07,494.572873     | 13,513.711420    | 40.174943 | -104.735900 |
| 6,836.00            | 6.35            | 352.91      | 6,817.02            | -341.50    | 276.37     | 07,497.264251     | 13,513.280702    | 40.174950 | -104.735901 |
| 6,868.00            | 10.10           | 352.02      | 6,848.69            | -336.96    | 275.77     | 07,501.795071     | 13,512.633543    | 40.174963 | -104.735903 |
| 6,899.00            | 13.11           | 351.10      | 6,879.05            | -330.79    | 274.84     | 07,507.953339     | 13,511.659059    | 40.174980 | -104.735906 |
| 6,931.00            | 14.66           | 350.96      | 6,910.11            | -323.21    | 273.65     | 07,515.527363     | 13,510.396099    | 40.175001 | -104.735911 |
| 6,962.00            | 16.42           | 348.56      | 6,939.98            | -315.04    | 272.16     | 07,523.683150     | 13,508.840394    | 40.175023 | -104.735916 |
| 6,994.00            | 19.12           | 348.12      | 6,970.45            | -305.48    | 270.18     | 07,533.228635     | 13,506.781949    | 40.175049 | -104.735923 |
| 7,026.00            | 20.98           | 349.51      | 7,000.51            | -294.71    | 268.06     | 07,543.971967     | 13,504.567443    | 40.175079 | -104.735931 |
| 7,057.00            | 22.57           | 350.09      | 7,029.30            | -283.40    | 266.03     | 07,555.271521     | 13,502.435843    | 40.175110 | -104.735938 |
| 7,089.00            | 25.49           | 352.13      | 7,058.52            | -270.52    | 264.03     | 07,568.126464     | 13,500.325062    | 40.175145 | -104.735945 |
| 7,121.00            | 28.42           | 351.84      | 7,087.04            | -256.16    | 262.00     | 07,582.469649     | 13,498.177526    | 40.175185 | -104.735952 |
| 7,152.00            | 32.84           | 351.61      | 7,113.71            | -240.54    | 259.73     | 07,598.074451     | 13,495.768589    | 40.175228 | -104.735961 |
| 7,184.00            | 35.99           | 350.84      | 7,140.10            | -222.67    | 256.97     | 07,615.920101     | 13,492.851521    | 40.175277 | -104.735970 |
| 7,215.00            | 39.08           | 351.71      | 7,164.68            | -204.00    | 254.11     | 07,634.560174     | 13,489.831553    | 40.175328 | -104.735981 |
| 7,247.00            | 42.74           | 350.29      | 7,188.86            | -183.31    | 250.82     | 07,655.222021     | 13,486.366809    | 40.175385 | -104.735992 |
| 7,279.00            | 46.11           | 351.21      | 7,211.71            | -161.20    | 247.22     | 07,677.294465     | 13,482.582293    | 40.175445 | -104.736005 |
| 7,311.00            | 48.84           | 352.25      | 7,233.34            | -137.87    | 243.84     | 07,700.599520     | 13,478.994591    | 40.175509 | -104.736017 |
| 7,342.00            | 52.98           | 351.96      | 7,252.88            | -114.04    | 240.53     | 07,724.396494     | 13,475.483816    | 40.175575 | -104.736029 |
| 7,374.00            | 56.93           | 352.28      | 7,271.26            | -88.09     | 236.94     | 07,750.309656     | 13,471.671525    | 40.175646 | -104.736042 |
| 7,405.00            | 60.55           | 353.11      | 7,287.34            | -61.81     | 233.58     | 07,776.558730     | 13,468.080465    | 40.175718 | -104.736054 |
| 7,437.00            | 64.76           | 354.27      | 7,302.04            | -33.57     | 230.46     | 07,804.775235     | 13,464.719823    | 40.175796 | -104.736065 |
| 7,468.00            | 66.31           | 354.56      | 7,314.87            | -5.49      | 227.71     | 07,832.831227     | 13,461.732805    | 40.175873 | -104.736075 |
| 7,500.00            | 69.79           | 356.43      | 7,326.83            | 24.10      | 225.39     | 07,862.391747     | 13,459.153548    | 40.175954 | -104.736083 |
| 7,532.00            | 74.17           | 357.44      | 7,336.73            | 54.48      | 223.77     | 07,892.754504     | 13,457.268934    | 40.176037 | -104.736089 |

# Halliburton Company

## Survey Report - Geographic

|                  |                          |                                     |                             |
|------------------|--------------------------|-------------------------------------|-----------------------------|
| <b>Company:</b>  | Anadarko Petroleum Corp. | <b>Local Co-ordinate Reference:</b> | Well Brown Federal 26N-35HZ |
| <b>Project:</b>  | Weld County, CO (NAD 83) | <b>TVD Reference:</b>               | RKB=25' @ 5078.00ft (HP308) |
| <b>Site:</b>     | Sec. 35-T3N-R66W         | <b>MD Reference:</b>                | RKB=25' @ 5078.00ft (HP308) |
| <b>Well:</b>     | Brown Federal 26N-35HZ   | <b>North Reference:</b>             | True                        |
| <b>Wellbore:</b> | Plan C Rev 0             | <b>Survey Calculation Method:</b>   | Minimum Curvature           |
| <b>Design:</b>   | Actual Field Surveys     | <b>Database:</b>                    | EDM 2003.16 Single User Db  |

### Survey

| Measured Depth (ft)                                | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Map Northing (ft) | Map Easting (ft) | Latitude  | Longitude   |
|--|-----------------|-------------|---------------------|------------|------------|-------------------|------------------|-----------|-------------|
| 7,563.00   | 78.19           | 356.91      | 7,344.13            | 84.54      | 222.28     | 07,922.798996     | 13,455.525868    | 40.176120 | -104.736095 |
| 7,595.00   | 80.22           | 357.36      | 7,350.13            | 115.93     | 220.71     | 07,954.175708     | 13,453.685207    | 40.176206 | -104.736100 |
| 7,630.00   | 83.33           | 357.54      | 7,355.13            | 150.53     | 219.17     | 07,988.761136     | 13,451.846804    | 40.176301 | -104.736106 |
| 7,680.00   | 84.71           | 358.67      | 7,360.34            | 200.23     | 217.52     | 08,038.441825     | 13,449.774464    | 40.176437 | -104.736112 |
| <b>7" Casing Point</b>                             |                 |             |                     |            |            |                   |                  |           |             |
| 7,681.00   | 84.74           | 358.69      | 7,360.43            | 201.22     | 217.50     | 08,039.437051     | 13,449.742939    | 40.176440 | -104.736112 |
| 7,776.00   | 86.41           | 359.95      | 7,367.76            | 295.93     | 216.38     | 08,134.124757     | 13,447.805211    | 40.176700 | -104.736116 |
| 7,871.00   | 86.79           | 0.48        | 7,373.40            | 390.76     | 216.73     | 08,228.951898     | 13,447.345074    | 40.176961 | -104.736114 |
| 7,966.00   | 89.57           | 0.38        | 7,376.41            | 485.70     | 217.45     | 08,323.890574     | 13,447.240502    | 40.177221 | -104.736112 |
| 8,062.00   | 90.31           | 0.12        | 7,376.52            | 581.70     | 217.87     | 08,419.884847     | 13,446.833253    | 40.177485 | -104.736110 |
| 8,157.00   | 91.05           | 1.14        | 7,375.39            | 676.69     | 218.91     | 08,514.871952     | 13,447.060195    | 40.177745 | -104.736107 |
| 8,252.00   | 91.42           | 1.25        | 7,373.34            | 771.64     | 220.89     | 08,609.838559     | 13,448.223680    | 40.178006 | -104.736100 |
| 8,348.00   | 91.30           | 1.02        | 7,371.06            | 867.60     | 222.79     | 08,705.801351     | 13,449.298866    | 40.178269 | -104.736093 |
| 8,443.00   | 92.41           | 0.68        | 7,367.99            | 962.53     | 224.20     | 08,800.744082     | 13,449.890416    | 40.178530 | -104.736088 |
| 8,538.00   | 91.30           | 0.82        | 7,364.91            | 1,057.48   | 225.44     | 08,895.687817     | 13,450.316208    | 40.178791 | -104.736083 |
| 8,634.00   | 90.99           | 0.87        | 7,362.99            | 1,153.45   | 226.86     | 08,991.662657     | 13,450.905726    | 40.179054 | -104.736078 |
| 8,729.00   | 90.74           | 1.26        | 7,361.56            | 1,248.42   | 228.62     | 09,086.642821     | 13,451.853864    | 40.179315 | -104.736072 |
| 8,824.00   | 90.43           | 0.84        | 7,360.59            | 1,343.40   | 230.37     | 09,181.629035     | 13,452.777173    | 40.179575 | -104.736066 |
| 8,919.00   | 90.31           | 0.77        | 7,359.98            | 1,438.39   | 231.70     | 09,276.621604     | 13,453.294335    | 40.179836 | -104.736061 |
| 9,014.00   | 89.81           | 0.82        | 7,359.88            | 1,533.38   | 233.02     | 09,371.615909     | 13,453.794927    | 40.180097 | -104.736056 |
| 9,109.00   | 88.39           | 0.83        | 7,361.37            | 1,628.35   | 234.39     | 09,466.596146     | 13,454.345177    | 40.180358 | -104.736051 |
| 9,204.00   | 91.42           | 1.74        | 7,361.53            | 1,723.32   | 236.52     | 09,561.570856     | 13,455.658012    | 40.180618 | -104.736044 |
| 9,299.00   | 90.80           | 1.37        | 7,359.69            | 1,818.26   | 239.09     | 09,656.532070     | 13,457.418208    | 40.180879 | -104.736034 |
| 9,394.00   | 91.36           | 1.52        | 7,357.90            | 1,913.21   | 241.49     | 09,751.497662     | 13,458.996128    | 40.181140 | -104.736026 |
| 9,489.00   | 92.10           | 1.98        | 7,355.03            | 2,008.13   | 244.39     | 09,846.426582     | 13,461.078896    | 40.181400 | -104.736015 |
| 9,585.00   | 91.73           | 0.87        | 7,351.82            | 2,104.04   | 246.77     | 09,942.354547     | 13,462.639224    | 40.181663 | -104.736007 |
| 9,680.00   | 92.54           | 0.69        | 7,348.28            | 2,198.97   | 248.07     | 10,037.282564     | 13,463.114653    | 40.181924 | -104.736002 |
| 9,775.00   | 90.74           | 0.99        | 7,345.56            | 2,293.91   | 249.46     | 10,132.233878     | 13,463.689707    | 40.182185 | -104.735997 |
| 9,870.00   | 90.06           | 2.16        | 7,344.90            | 2,388.87   | 252.07     | 10,227.208400     | 13,465.483386    | 40.182445 | -104.735988 |
| 9,965.00   | 89.75           | 0.83        | 7,345.06            | 2,483.84   | 254.55     | 10,322.187477     | 13,467.144456    | 40.182706 | -104.735979 |
| 10,061.00  | 89.44           | 0.81        | 7,345.73            | 2,579.83   | 255.92     | 10,418.179338     | 13,467.692190    | 40.182970 | -104.735974 |
| 10,156.00  | 89.38           | 1.23        | 7,346.71            | 2,674.80   | 257.61     | 10,513.166048     | 13,468.565772    | 40.183230 | -104.735968 |
| 10,251.00  | 89.44           | 0.72        | 7,347.69            | 2,769.79   | 259.23     | 10,608.153314     | 13,469.364751    | 40.183491 | -104.735962 |
| 10,347.00  | 90.31           | 0.52        | 7,347.90            | 2,865.78   | 260.27     | 10,704.147818     | 13,469.577408    | 40.183754 | -104.735959 |
| 10,443.00  | 91.54           | 0.23        | 7,346.35            | 2,961.76   | 260.90     | 10,800.129098     | 13,469.379658    | 40.184018 | -104.735956 |
| 10,538.00  | 92.91           | 0.77        | 7,342.66            | 3,056.68   | 261.73     | 10,895.050844     | 13,469.390930    | 40.184278 | -104.735953 |
| 10,633.00  | 93.15           | 0.90        | 7,337.64            | 3,151.54   | 263.11     | 10,989.912241     | 13,469.957038    | 40.184539 | -104.735948 |
| 10,729.00  | 92.65           | 1.10        | 7,332.78            | 3,247.40   | 264.78     | 11,085.781138     | 13,470.805305    | 40.184802 | -104.735942 |
| 10,824.00  | 94.02           | 1.10        | 7,327.26            | 3,342.22   | 266.60     | 11,180.608660     | 13,471.809842    | 40.185062 | -104.735936 |
| 10,920.00  | 93.15           | 359.93      | 7,321.25            | 3,438.03   | 267.46     | 11,276.414143     | 13,471.846045    | 40.185325 | -104.735933 |
| 11,015.00  | 91.54           | 0.24        | 7,317.37            | 3,532.95   | 267.60     | 11,371.324926     | 13,471.170209    | 40.185586 | -104.735932 |
| 11,111.00  | 89.32           | 358.83      | 7,316.65            | 3,628.93   | 266.82     | 11,467.296313     | 13,469.565103    | 40.185849 | -104.735935 |
| 11,206.00  | 88.95           | 358.32      | 7,318.08            | 3,723.89   | 264.46     | 11,562.227771     | 13,466.385948    | 40.186110 | -104.735943 |
| 11,301.00  | 90.06           | 358.52      | 7,318.90            | 3,818.85   | 261.84     | 11,657.156503     | 13,462.949760    | 40.186371 | -104.735953 |
| 11,397.00  | 90.68           | 358.10      | 7,318.28            | 3,914.81   | 259.01     | 11,753.080087     | 13,459.293143    | 40.186634 | -104.735963 |
| 11,492.00  | 89.94           | 359.47      | 7,317.77            | 4,009.78   | 257.00     | 11,848.029548     | 13,456.461762    | 40.186895 | -104.735970 |
| 11,588.00  | 90.06           | 359.68      | 7,317.77            | 4,105.78   | 256.29     | 11,944.013092     | 13,454.923652    | 40.187158 | -104.735973 |
| 11,683.00  | 89.81           | 0.54        | 7,317.88            | 4,200.78   | 256.47     | 12,039.005921     | 13,454.288533    | 40.187419 | -104.735972 |
| 11,752.00  | 89.51           | 0.95        | 7,318.28            | 4,269.77   | 257.36     | 12,108.000895     | 13,454.591901    | 40.187608 | -104.735969 |
| <b>Final Sperry MWD Survey @ 11752.00ft</b>        |                 |             |                     |            |            |                   |                  |           |             |
| 11,799.00  | 89.51           | 0.95        | 7,318.69            | 4,316.76   | 258.14     | 12,154.995693     | 13,454.966689    | 40.187737 | -104.735966 |
| <b>Straight Line Projection to TD @ 11799.00ft</b> |                 |             |                     |            |            |                   |                  |           |             |

# Halliburton Company

## Survey Report - Geographic

|                  |                          |                                     |                             |
|------------------|--------------------------|-------------------------------------|-----------------------------|
| <b>Company:</b>  | Anadarko Petroleum Corp. | <b>Local Co-ordinate Reference:</b> | Well Brown Federal 26N-35HZ |
| <b>Project:</b>  | Weld County, CO (NAD 83) | <b>TVD Reference:</b>               | RKB=25' @ 5078.00ft (HP308) |
| <b>Site:</b>     | Sec. 35-T3N-R66W         | <b>MD Reference:</b>                | RKB=25' @ 5078.00ft (HP308) |
| <b>Well:</b>     | Brown Federal 26N-35HZ   | <b>North Reference:</b>             | True                        |
| <b>Wellbore:</b> | Plan C Rev 0             | <b>Survey Calculation Method:</b>   | Minimum Curvature           |
| <b>Design:</b>   | Actual Field Surveys     | <b>Database:</b>                    | EDM 2003.16 Single User Db  |

### 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)           |           |             |
| Brown Federal 26N-35 | - actual wellpath misses target center by 39.58ft at 10704.46ft MD (7333.95 TVD, 3222.89 N, 264.32 E)  | 0.00      | 0.00     | 7,372.35 | 3,225.00 | 255.00    | 311,063.294910 | 13,461.217820  | 40.184741 | -104.735977 |
| - Point              |  |           |          |          |          |           |                |                |           |             |
| Brown Federal 26N-35 | - actual wellpath misses target center by 191.21ft at 11799.00ft MD (7318.69 TVD, 4316.76 N, 258.14 E) | 0.00      | 0.00     | 7,348.00 | 4,321.71 | 447.03    | 312,161.571988 | 13,643.795720  | 40.187751 | -104.735290 |
| - Point              |  |           |          |          |          |           |                |                |           |             |
| Brown Pad_Sec 35 4E  | - actual wellpath misses target center by 4251.48ft at 3.77ft MD (3.77 TVD, 0.00 N, 0.00 E)            | 0.00      | 0.00     | 0.00     | 123.68   | -4,249.68 | 307,923.461379 | 208,983.578973 | 40.176226 | -104.752098 |
| - Polygon            |  |           |          |          |          |           |                |                |           |             |
| Point 1              |  |           |          | 0.00     | 4,302.89 | -4,255.11 | 1,312,102.29   | 3,208,942.19   |           |             |
| Point 2              |  |           |          | 0.00     | 2,123.34 | -4,255.20 | 1,309,922.92   | 3,208,960.85   |           |             |
| Point 3              |  |           |          | 0.00     | -55.21   | -4,256.89 | 1,307,744.52   | 3,208,977.91   |           |             |
| Point 4              |  |           |          | 0.00     | -28.65   | -2,100.65 | 1,307,789.64   | 3,211,133.75   |           |             |
| Point 5              |  |           |          | 0.00     | -2.35    | 68.90     | 1,307,834.60   | 3,213,302.90   |           |             |
| Point 6              |  |           |          | 0.00     | 2,158.86 | 78.16     | 1,309,995.72   | 3,213,293.56   |           |             |
| Point 7              |  |           |          | 0.00     | 4,320.15 | 87.05     | 1,312,156.92   | 3,213,283.85   |           |             |
| Point 8              |  |           |          | 0.00     | 4,311.44 | -2,083.65 | 1,312,129.53   | 3,211,113.40   |           |             |
| Point 9              |  |           |          | 0.00     | 4,301.89 | -4,255.12 | 1,312,101.29   | 3,208,942.18   |           |             |
| Brown 4 Pad_Sec 35   | - actual wellpath misses target center by 4251.48ft at 3.77ft MD (3.77 TVD, 0.00 N, 0.00 E)            | 0.00      | 0.00     | 0.00     | 123.65   | -4,249.68 | 307,923.428091 | 208,983.579254 | 40.176226 | -104.752098 |
| - Polygon            |  |           |          |          |          |           |                |                |           |             |
| Point 1              |  |           |          | 0.00     | 4,761.07 | -4,715.11 | 1,312,556.48   | 3,208,478.28   |           |             |
| Point 2              |  |           |          | 0.00     | 2,119.56 | -4,715.22 | 1,309,915.17   | 3,208,500.90   |           |             |
| Point 3              |  |           |          | 0.00     | -520.96  | -4,717.27 | 1,307,274.85   | 3,208,521.57   |           |             |
| Point 4              |  |           |          | 0.00     | -488.67  | -2,094.99 | 1,307,329.70   | 3,211,143.37   |           |             |
| Point 5              |  |           |          | 0.00     | -458.43  | 525.01    | 1,307,382.48   | 3,213,762.90   |           |             |
| Point 6              |  |           |          | 0.00     | 2,164.44 | 539.91    | 1,310,005.27   | 3,213,755.23   |           |             |
| Point 7              |  |           |          | 0.00     | 4,781.99 | 548.98    | 1,312,622.69   | 3,213,741.77   |           |             |
| Point 8              |  |           |          | 0.00     | 4,771.44 | -2,082.56 | 1,312,589.50   | 3,211,110.53   |           |             |
| Point 9              |  |           |          | 0.00     | 4,761.07 | -4,715.11 | 1,312,556.48   | 3,208,478.28   |           |             |
| Brown Federal 26N-35 | - actual wellpath hits target center   | 0.00      | 0.00     | 0.00     | 0.00     | 0.00      | 307,836.356420 | 13,233.989950  | 40.175888 | -104.736890 |
| - Point              |  |           |          |          |          |           |                |                |           |             |
| Brown Federal 26N-35 | - actual wellpath misses target center by 72.84ft at 11799.00ft MD (7318.69 TVD, 4316.76 N, 258.14 E)  | 0.00      | 0.00     | 7,248.00 | 4,321.71 | 275.00    | 312,160.090010 | 13,471.778781  | 40.187751 | -104.735906 |
| - Point              |  |           |          |          |          |           |                |                |           |             |

### Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name            | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|-----------------|---------------------|-------------------|
| 7,680.00            | 7,360.34            | 7" Casing Point | 7                   | 8-3/4             |



# Halliburton Company

## Survey Report - Geographic

|                  |                          |                                     |                             |
|------------------|--------------------------|-------------------------------------|-----------------------------|
| <b>Company:</b>  | Anadarko Petroleum Corp. | <b>Local Co-ordinate Reference:</b> | Well Brown Federal 26N-35HZ |
| <b>Project:</b>  | Weld County, CO (NAD 83) | <b>TVD Reference:</b>               | RKB=25' @ 5078.00ft (HP308) |
| <b>Site:</b>     | Sec. 35-T3N-R66W         | <b>MD Reference:</b>                | RKB=25' @ 5078.00ft (HP308) |
| <b>Well:</b>     | Brown Federal 26N-35HZ   | <b>North Reference:</b>             | True                        |
| <b>Wellbore:</b> | Plan C Rev 0             | <b>Survey Calculation Method:</b>   | Minimum Curvature           |
| <b>Design:</b>   | Actual Field Surveys     | <b>Database:</b>                    | EDM 2003.16 Single User Db  |

### Targets

| Target Name           | - hit/miss target  | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(ft) | +N/-S<br>(ft) | +E/-W<br>(ft) | Northing<br>(ft) | Easting<br>(ft) | Latitude  | Longitude   |
|-----------------------|--|------------------|-----------------|-------------|---------------|---------------|------------------|-----------------|-----------|-------------|
| Brown Federal 26N-35H | - actual wellpath misses target center by 39.58ft at 10704.46ft MD (7333.95 TVD, 3222.89 N, 264.32 E)  | 0.00             | 0.00            | 7,372.35    | 3,225.00      | 255.00        | 311,063.294910   | 13,461.217820   | 40.184741 | -104.735977 |
| Brown Federal 26N-35H | - Point  |                  |                 |             |               |               |                  |                 |           |             |
| Brown Federal 26N-35H | - actual wellpath misses target center by 191.21ft at 11799.00ft MD (7318.69 TVD, 4316.76 N, 258.14 E) | 0.00             | 0.00            | 7,348.00    | 4,321.71      | 447.03        | 312,161.571988   | 13,643.795720   | 40.187751 | -104.735290 |
| Brown Federal 26N-35H | - Point  |                  |                 |             |               |               |                  |                 |           |             |
| Brown Pad_Sec 35 4E   | - actual wellpath misses target center by 4251.48ft at 3.77ft MD (3.77 TVD, 0.00 N, 0.00 E)            | 0.00             | 0.00            | 0.00        | 123.68        | -4,249.68     | 307,923.461379   | 208,983.578973  | 40.176226 | -104.752098 |
| Brown Pad_Sec 35 4E   | - Polygon  |                  |                 |             |               |               |                  |                 |           |             |
| Point 1               |  |                  |                 | 0.00        | 4,302.89      | -4,255.11     | 1,312,102.29     | 3,208,942.19    |           |             |
| Point 2               |  |                  |                 | 0.00        | 2,123.34      | -4,255.20     | 1,309,922.92     | 3,208,960.85    |           |             |
| Point 3               |  |                  |                 | 0.00        | -55.21        | -4,256.89     | 1,307,744.52     | 3,208,977.91    |           |             |
| Point 4               |  |                  |                 | 0.00        | -28.65        | -2,100.65     | 1,307,789.64     | 3,211,133.75    |           |             |
| Point 5               |  |                  |                 | 0.00        | -2.35         | 68.90         | 1,307,834.60     | 3,213,302.90    |           |             |
| Point 6               |  |                  |                 | 0.00        | 2,158.86      | 78.16         | 1,309,995.72     | 3,213,293.56    |           |             |
| Point 7               |  |                  |                 | 0.00        | 4,320.15      | 87.05         | 1,312,156.92     | 3,213,283.85    |           |             |
| Point 8               |  |                  |                 | 0.00        | 4,311.44      | -2,083.65     | 1,312,129.53     | 3,211,113.40    |           |             |
| Point 9               |  |                  |                 | 0.00        | 4,301.89      | -4,255.12     | 1,312,101.29     | 3,208,942.18    |           |             |
| Brown 4 Pad_Sec 35    | - actual wellpath misses target center by 4251.48ft at 3.77ft MD (3.77 TVD, 0.00 N, 0.00 E)            | 0.00             | 0.00            | 0.00        | 123.65        | -4,249.68     | 307,923.428091   | 208,983.579254  | 40.176226 | -104.752098 |
| Brown 4 Pad_Sec 35    | - Polygon  |                  |                 |             |               |               |                  |                 |           |             |
| Point 1               |  |                  |                 | 0.00        | 4,761.07      | -4,715.11     | 1,312,556.48     | 3,208,478.28    |           |             |
| Point 2               |  |                  |                 | 0.00        | 2,119.56      | -4,715.22     | 1,309,915.17     | 3,208,500.90    |           |             |
| Point 3               |  |                  |                 | 0.00        | -520.96       | -4,717.27     | 1,307,274.85     | 3,208,521.57    |           |             |
| Point 4               |  |                  |                 | 0.00        | -488.67       | -2,094.99     | 1,307,329.70     | 3,211,143.37    |           |             |
| Point 5               |  |                  |                 | 0.00        | -458.43       | 525.01        | 1,307,382.48     | 3,213,762.90    |           |             |
| Point 6               |  |                  |                 | 0.00        | 2,164.44      | 539.91        | 1,310,005.27     | 3,213,755.23    |           |             |
| Point 7               |  |                  |                 | 0.00        | 4,781.99      | 548.98        | 1,312,622.69     | 3,213,741.77    |           |             |
| Point 8               |  |                  |                 | 0.00        | 4,771.44      | -2,082.56     | 1,312,589.50     | 3,211,110.53    |           |             |
| Point 9               |  |                  |                 | 0.00        | 4,761.07      | -4,715.11     | 1,312,556.48     | 3,208,478.28    |           |             |
| Brown Federal 26N-35H | - actual wellpath hits target center   | 0.00             | 0.00            | 0.00        | 0.00          | 0.00          | 307,836.356420   | 13,233.989950   | 40.175888 | -104.736890 |
| Brown Federal 26N-35H | - Point  |                  |                 |             |               |               |                  |                 |           |             |
| Brown Federal 26N-35H | - actual wellpath misses target center by 72.84ft at 11799.00ft MD (7318.69 TVD, 4316.76 N, 258.14 E)  | 0.00             | 0.00            | 7,248.00    | 4,321.71      | 275.00        | 312,160.090010   | 13,471.778781   | 40.187751 | -104.735906 |
| Brown Federal 26N-35H | - Point  |                  |                 |             |               |               |                  |                 |           |             |

### Casing Points

| Measured Depth<br>(ft) | Vertical Depth<br>(ft) | Name            | Casing Diameter<br>(") | Hole Diameter<br>(") |
|------------------------|------------------------|-----------------|------------------------|----------------------|
| 7,680.00               | 7,360.34               | 7" Casing Point | 7                      | 8-3/4                |

### Design Annotations

| Measured Depth<br>(ft) | Vertical Depth<br>(ft) | Local Coordinates<br>+N/-S<br>(ft) | +E/-W<br>(ft) | Comment                              |
|------------------------|------------------------|------------------------------------|---------------|--------------------------------------|
| 125.00                 | 125.00                 | -0.13                              | -0.11         | First Surface Gyro Survey @ 125.00ft |
| 790.00                 | 789.98                 | -2.28                              | -0.19         | Tie-On to Surface Gyros @ 790.00ft   |
| 790.00                 | 789.98                 | -2.28                              | -0.19         | Final Surface Gyro Survey @ 790.00ft |
| 907.00                 | 906.96                 | -4.43                              | -1.03         | First Gyro Survey @ 907.00ft         |
| 1,164.00               | 1,163.58               | -15.05                             | 5.57          | Final Gyro Survey @ 1164ft           |

# Halliburton Company

## Survey Report - Geographic

|                  |                          |                                     |                             |
|------------------|--------------------------|-------------------------------------|-----------------------------|
| <b>Company:</b>  | Anadarko Petroleum Corp. | <b>Local Co-ordinate Reference:</b> | Well Brown Federal 26N-35HZ |
| <b>Project:</b>  | Weld County, CO (NAD 83) | <b>TVD Reference:</b>               | RKB=25' @ 5078.00ft (HP308) |
| <b>Site:</b>     | Sec. 35-T3N-R66W         | <b>MD Reference:</b>                | RKB=25' @ 5078.00ft (HP308) |
| <b>Well:</b>     | Brown Federal 26N-35HZ   | <b>North Reference:</b>             | True                        |
| <b>Wellbore:</b> | Plan C Rev 0             | <b>Survey Calculation Method:</b>   | Minimum Curvature           |
| <b>Design:</b>   | Actual Field Surveys     | <b>Database:</b>                    | EDM 2003.16 Single User Db  |

### 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)           |           |             |
| Brown Federal 26N-35 | - actual wellpath misses target center by 39.58ft at 10704.46ft MD (7333.95 TVD, 3222.89 N, 264.32 E)  | 0.00      | 0.00     | 7,372.35 | 3,225.00 | 255.00    | 311,063.294910 | 213,461.217820 | 40.184741 | -104.735977 |
| - Point              |  |           |          |          |          |           |                |                |           |             |
| Brown Federal 26N-35 | - actual wellpath misses target center by 191.21ft at 11799.00ft MD (7318.69 TVD, 4316.76 N, 258.14 E) | 0.00      | 0.00     | 7,348.00 | 4,321.71 | 447.03    | 312,161.571988 | 213,643.795720 | 40.187751 | -104.735290 |
| - Point              |  |           |          |          |          |           |                |                |           |             |
| Brown Pad_Sec 35 4E  | - actual wellpath misses target center by 4251.48ft at 3.77ft MD (3.77 TVD, 0.00 N, 0.00 E)            | 0.00      | 0.00     | 0.00     | 123.68   | -4,249.68 | 307,923.461379 | 208,983.578973 | 40.176226 | -104.752098 |
| - Polygon            |  |           |          |          |          |           |                |                |           |             |
| Point 1              |  |           |          | 0.00     | 4,302.89 | -4,255.11 | 1,312,102.29   | 3,208,942.19   |           |             |
| Point 2              |  |           |          | 0.00     | 2,123.34 | -4,255.20 | 1,309,922.92   | 3,208,960.85   |           |             |
| Point 3              |  |           |          | 0.00     | -55.21   | -4,256.89 | 1,307,744.52   | 3,208,977.91   |           |             |
| Point 4              |  |           |          | 0.00     | -28.65   | -2,100.65 | 1,307,789.64   | 3,211,133.75   |           |             |
| Point 5              |  |           |          | 0.00     | -2.35    | 68.90     | 1,307,834.60   | 3,213,302.90   |           |             |
| Point 6              |  |           |          | 0.00     | 2,158.86 | 78.16     | 1,309,995.72   | 3,213,293.56   |           |             |
| Point 7              |  |           |          | 0.00     | 4,320.15 | 87.05     | 1,312,156.92   | 3,213,283.85   |           |             |
| Point 8              |  |           |          | 0.00     | 4,311.44 | -2,083.65 | 1,312,129.53   | 3,211,113.40   |           |             |
| Point 9              |  |           |          | 0.00     | 4,301.89 | -4,255.12 | 1,312,101.29   | 3,208,942.18   |           |             |
| Brown 4 Pad_Sec 35   | - actual wellpath misses target center by 4251.48ft at 3.77ft MD (3.77 TVD, 0.00 N, 0.00 E)            | 0.00      | 0.00     | 0.00     | 123.65   | -4,249.68 | 307,923.428091 | 208,983.579254 | 40.176226 | -104.752098 |
| - Polygon            |  |           |          |          |          |           |                |                |           |             |
| Point 1              |  |           |          | 0.00     | 4,761.07 | -4,715.11 | 1,312,556.48   | 3,208,478.28   |           |             |
| Point 2              |  |           |          | 0.00     | 2,119.56 | -4,715.22 | 1,309,915.17   | 3,208,500.90   |           |             |
| Point 3              |  |           |          | 0.00     | -520.96  | -4,717.27 | 1,307,274.85   | 3,208,521.57   |           |             |
| Point 4              |  |           |          | 0.00     | -488.67  | -2,094.99 | 1,307,329.70   | 3,211,143.37   |           |             |
| Point 5              |  |           |          | 0.00     | -458.43  | 525.01    | 1,307,382.48   | 3,213,762.90   |           |             |
| Point 6              |  |           |          | 0.00     | 2,164.44 | 539.91    | 1,310,005.27   | 3,213,755.23   |           |             |
| Point 7              |  |           |          | 0.00     | 4,781.99 | 548.98    | 1,312,622.69   | 3,213,741.77   |           |             |
| Point 8              |  |           |          | 0.00     | 4,771.44 | -2,082.56 | 1,312,589.50   | 3,211,110.53   |           |             |
| Point 9              |  |           |          | 0.00     | 4,761.07 | -4,715.11 | 1,312,556.48   | 3,208,478.28   |           |             |
| Brown Federal 26N-35 | - actual wellpath hits target center   | 0.00      | 0.00     | 0.00     | 0.00     | 0.00      | 307,836.356420 | 213,233.989950 | 40.175888 | -104.736890 |
| - Point              |  |           |          |          |          |           |                |                |           |             |
| Brown Federal 26N-35 | - actual wellpath misses target center by 72.84ft at 11799.00ft MD (7318.69 TVD, 4316.76 N, 258.14 E)  | 0.00      | 0.00     | 7,248.00 | 4,321.71 | 275.00    | 312,160.090010 | 213,471.778781 | 40.187751 | -104.735906 |
| - Point              |  |           |          |          |          |           |                |                |           |             |

### Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name            | Casing Diameter (") | Hole Diameter (")                           |
|---------------------|---------------------|-----------------|---------------------|---|
| 7,680.00            | 7,360.34            | 7" Casing Point | 7                   | 8-3/4                                       |
| 1,164.00            | 1,163.58            | -15.05          | 5.57                | Tie-On to Gyro Surveys @ 1164.00ft          |
| 1,238.00            | 1,237.28            | -19.64          | 10.36               | First Sperry MWD Survey @ 1238.00ft         |
| 11,752.00           | 7,318.28            | 4,269.77        | 257.36              | Final Sperry MWD Survey @ 11752.00ft        |
| 11,799.00           | 7,318.69            | 4,316.76        | 258.14              | Straight Line Projection to TD @ 11799.00ft |

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