

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_BROWN 5 PAD

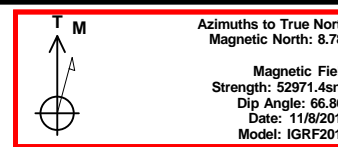
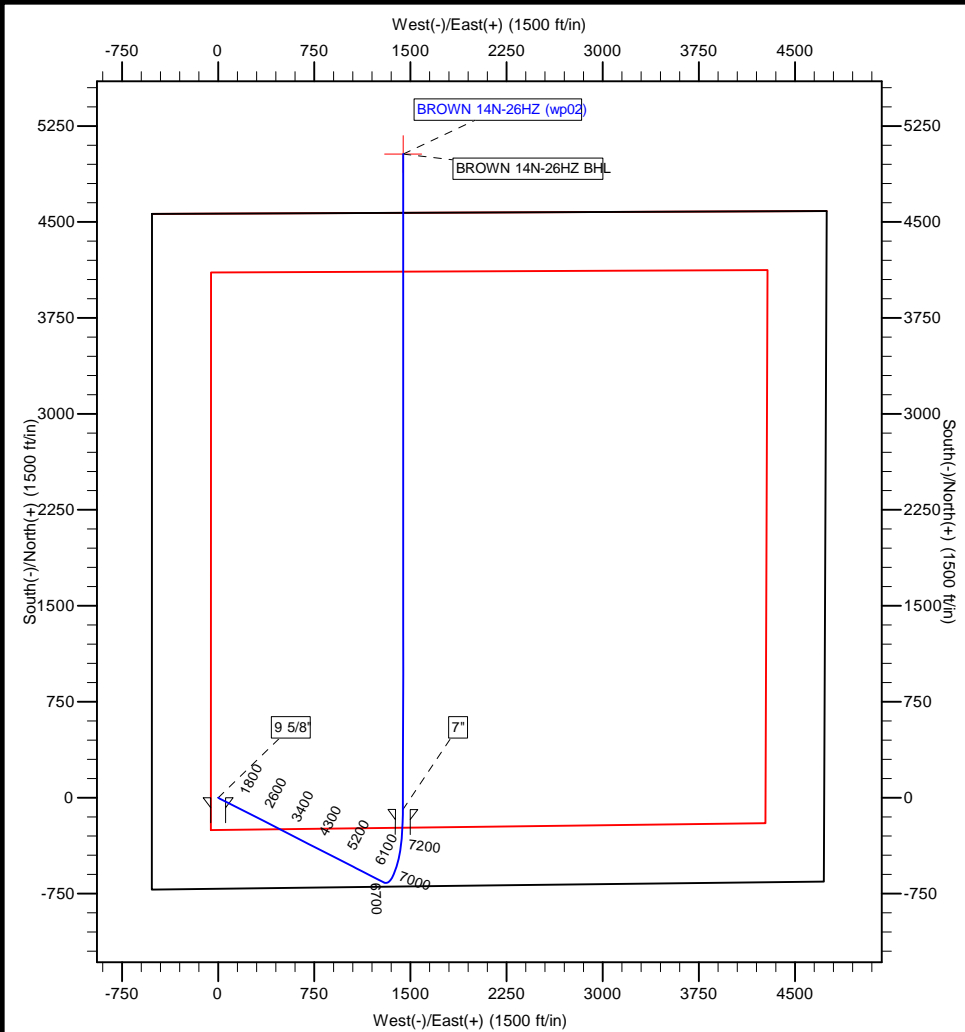
BROWN 14N-26HZ

BROWN 14N-26HZ

Plan: BROWN 14N-26HZ (wp02)

Standard Planning Report

16 December, 2011



Project: COLORADO NORTHERN ZONE - 83
Site: WELD BROWN 5 PAD
Well: BROWN 14N-26HZ
Wellbore: BROWN 14N-26HZ
Section:
SHL:
Design: BROWN 14N-26HZ (wp02)
Latitude: 40.176430
Longitude: -104.751918
GL: 5020.00
KB: GL + 25' RKB @ 5045.00ft

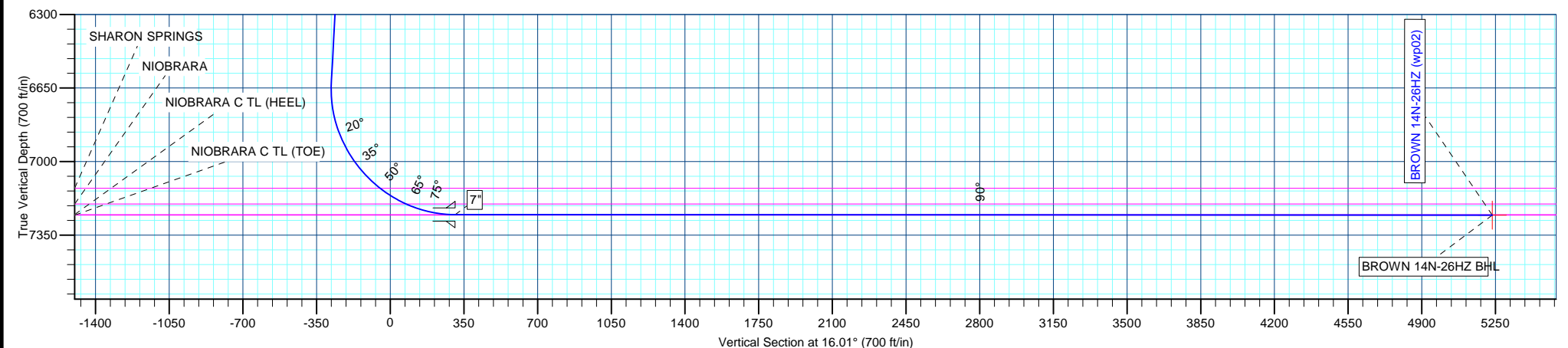
| WELL DETAILS: BROWN 14N-26HZ | | | | | | |
|------------------------------|-------|------------|-----------------------|------------------|---------------------|------|
| +N/-S | +E/-W | Northing | Ground Level: Easting | 5020.00 Latitude | 40.176430 Longitude | Slot |
| 0.00 | 0.00 | 1307998.05 | 3209033.19 | 40.176430 | -104.751918 | |

| SECTION DETAILS | | | | | | | | |
|-----------------|-------|--------|---------|---------|---------|-------|---------|---------|
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | VSect |
| 0.00 | 0.00 | 0.00 | 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 |
| 1659.12 | 15.18 | 117.14 | 1650.27 | -45.61 | 88.98 | 2.00 | 117.14 | -19.31 |
| 6818.45 | 15.18 | 117.14 | 6629.52 | -662.01 | 1291.39 | 0.00 | 0.00 | -280.26 |
| 7786.83 | 89.98 | 0.01 | 7253.00 | -93.39 | 1442.00 | 10.00 | -116.32 | 307.85 |
| 7787.22 | 89.98 | 0.01 | 7253.00 | -93.00 | 1442.00 | 1.00 | 96.87 | 308.22 |
| 12911.39 | 89.98 | 0.01 | 7255.00 | 5031.16 | 1443.24 | 0.00 | 0.00 | 5234.07 |

| WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG) | | | | | | | |
|---|---------|---------|---------|-----------|-------------|-------|-------|
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape | Point |
| BROWN 14N-26HZ BHL | 7255.00 | 5031.16 | 1443.24 | 40.190241 | -104.746752 | Point | |

| FORMATION TOP DETAILS | | |
|-----------------------|---------|----------------------|
| TVDPath | MDPath | Formation |
| 3325.00 | 3394.42 | PARKMAN |
| 4513.00 | 4625.38 | SUSSEX |
| 7128.00 | 7395.62 | SHARON SPRINGS |
| 7202.00 | 7539.95 | NIOBRARA |
| 7253.00 | 7786.83 | NIOBRARA C TL (HEEL) |

| CASING DETAILS | | | |
|----------------|---------|--------|-------|
| TVD | MD | Name | Size |
| 700.00 | 700.00 | 9 5/8" | 9-5/8 |
| 7253.00 | 7786.83 | 7" | 7 |



Anadarko Petroleum Corp

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|--------------------------|
| Database: | edmp | Local Co-ordinate Reference: | Well BROWN 14N-26HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL + 25' RKB @ 5045.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL + 25' RKB @ 5045.00ft |
| Site: | WELD_BROWN 5 PAD | North Reference: | True |
| Well: | BROWN 14N-26HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | BROWN 14N-26HZ | | |
| Design: | BROWN 14N-26HZ (wp02) | | |

| | | | |
|--------------------|-----------------------------|----------------------|----------------|
| Project | COLORADO NORTHERN ZONE - 83 | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| | | | | | |
|-----------------------|----------|------------------|-------------------|-------------------|-------------|
| Site | | WELD_BROWN 5 PAD | | | |
| Site Position: | | Northing: | 1,307,923.32 usft | Latitude: | 40.176226 |
| From: | Lat/Long | Easting: | 3,208,983.52 usft | Longitude: | -104.752098 |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.48 ° |

| Well | | BROWN 14N-26HZ | | | | |
|----------------------|-------|----------------|---------------------|-------------------|---------------|-------------|
| Well Position | +N/-S | 74.31 ft | Northing: | 1,307,998.05 usft | Latitude: | 40.176430 |
| | +E/-W | 50.30 ft | Easting: | 3,209,033.19 usft | Longitude: | -104.751918 |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 5,020.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | BROWN 14N-26HZ | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF2010 | 11/8/2011 | 8.78 | 66.86 | 52,971 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | BROWN 14N-26HZ (wp02) | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PROTOTYPE | Tie On Depth: | 0.00 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.00 | 0.00 | 0.00 | 16.01 |

| Plan Sections | | | | | | | | | | |
|----------------------|-----------------|-------------|---------------------|------------|------------|-------------------------|------------------------|-----------------------|---------|------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | 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 | |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,659.12 | 15.18 | 117.14 | 1,650.27 | -45.61 | 88.98 | 2.00 | 2.00 | 0.00 | 117.14 | |
| 6,818.45 | 15.18 | 117.14 | 6,629.52 | -662.01 | 1,291.39 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,786.83 | 89.98 | 0.01 | 7,253.00 | -93.39 | 1,442.00 | 10.00 | 7.72 | -12.10 | -116.32 | |
| 7,787.22 | 89.98 | 0.01 | 7,253.00 | -93.00 | 1,442.00 | 1.00 | -0.12 | 0.99 | 96.87 | |
| 12,911.39 | 89.98 | 0.01 | 7,255.00 | 5,031.16 | 1,443.24 | 0.00 | 0.00 | 0.00 | 0.00 | BROWN 14N-26HZ B |

Anadarko Petroleum Corp

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|--------------------------|
| Database: | edmp | Local Co-ordinate Reference: | Well BROWN 14N-26HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL + 25' RKB @ 5045.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL + 25' RKB @ 5045.00ft |
| Site: | WELD_BROWN 5 PAD | North Reference: | True |
| Well: | BROWN 14N-26HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | BROWN 14N-26HZ | | |
| Design: | BROWN 14N-26HZ (wp02) | | |

| Planned Survey | | | | | | | | | |
|----------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | 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 |
| 9 5/8" | | | | | | | | | |
| 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 |
| Start Build 2.00 | | | | | | | | | |
| 1,000.00 | 2.00 | 117.14 | 999.98 | -0.80 | 1.55 | -0.34 | 2.00 | 2.00 | 0.00 |
| 1,100.00 | 4.00 | 117.14 | 1,099.84 | -3.18 | 6.21 | -1.35 | 2.00 | 2.00 | 0.00 |
| 1,200.00 | 6.00 | 117.14 | 1,199.45 | -7.16 | 13.97 | -3.03 | 2.00 | 2.00 | 0.00 |
| 1,300.00 | 8.00 | 117.14 | 1,298.70 | -12.72 | 24.81 | -5.38 | 2.00 | 2.00 | 0.00 |
| 1,400.00 | 10.00 | 117.14 | 1,397.47 | -19.85 | 38.73 | -8.41 | 2.00 | 2.00 | 0.00 |
| 1,500.00 | 12.00 | 117.14 | 1,495.62 | -28.56 | 55.71 | -12.09 | 2.00 | 2.00 | 0.00 |
| 1,600.00 | 14.00 | 117.14 | 1,593.06 | -38.82 | 75.73 | -16.43 | 2.00 | 2.00 | 0.00 |
| 1,659.12 | 15.18 | 117.14 | 1,650.27 | -45.61 | 88.98 | -19.31 | 2.00 | 2.00 | 0.00 |
| Start 5159.33 hold at 1659.12 MD | | | | | | | | | |
| 1,700.00 | 15.18 | 117.14 | 1,689.72 | -50.50 | 98.51 | -21.38 | 0.00 | 0.00 | 0.00 |
| 1,800.00 | 15.18 | 117.14 | 1,786.23 | -62.44 | 121.81 | -26.44 | 0.00 | 0.00 | 0.00 |
| 1,900.00 | 15.18 | 117.14 | 1,882.74 | -74.39 | 145.12 | -31.49 | 0.00 | 0.00 | 0.00 |
| 2,000.00 | 15.18 | 117.14 | 1,979.25 | -86.34 | 168.42 | -36.55 | 0.00 | 0.00 | 0.00 |
| 2,100.00 | 15.18 | 117.14 | 2,075.76 | -98.29 | 191.73 | -41.61 | 0.00 | 0.00 | 0.00 |
| 2,200.00 | 15.18 | 117.14 | 2,172.27 | -110.23 | 215.03 | -46.67 | 0.00 | 0.00 | 0.00 |
| 2,300.00 | 15.18 | 117.14 | 2,268.78 | -122.18 | 238.34 | -51.72 | 0.00 | 0.00 | 0.00 |
| 2,400.00 | 15.18 | 117.14 | 2,365.29 | -134.13 | 261.64 | -56.78 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 15.18 | 117.14 | 2,461.80 | -146.08 | 284.95 | -61.84 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 15.18 | 117.14 | 2,558.31 | -158.02 | 308.26 | -66.90 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 15.18 | 117.14 | 2,654.82 | -169.97 | 331.56 | -71.96 | 0.00 | 0.00 | 0.00 |
| 2,800.00 | 15.18 | 117.14 | 2,751.33 | -181.92 | 354.87 | -77.01 | 0.00 | 0.00 | 0.00 |
| 2,900.00 | 15.18 | 117.14 | 2,847.84 | -193.86 | 378.17 | -82.07 | 0.00 | 0.00 | 0.00 |
| 3,000.00 | 15.18 | 117.14 | 2,944.35 | -205.81 | 401.48 | -87.13 | 0.00 | 0.00 | 0.00 |
| 3,100.00 | 15.18 | 117.14 | 3,040.86 | -217.76 | 424.78 | -92.19 | 0.00 | 0.00 | 0.00 |
| 3,200.00 | 15.18 | 117.14 | 3,137.37 | -229.71 | 448.09 | -97.24 | 0.00 | 0.00 | 0.00 |
| 3,300.00 | 15.18 | 117.14 | 3,233.88 | -241.65 | 471.39 | -102.30 | 0.00 | 0.00 | 0.00 |
| 3,394.42 | 15.18 | 117.14 | 3,325.00 | -252.93 | 493.40 | -107.08 | 0.00 | 0.00 | 0.00 |
| PARKMAN | | | | | | | | | |
| 3,400.00 | 15.18 | 117.14 | 3,330.39 | -253.60 | 494.70 | -107.36 | 0.00 | 0.00 | 0.00 |
| 3,500.00 | 15.18 | 117.14 | 3,426.89 | -265.55 | 518.01 | -112.42 | 0.00 | 0.00 | 0.00 |
| 3,600.00 | 15.18 | 117.14 | 3,523.40 | -277.49 | 541.31 | -117.48 | 0.00 | 0.00 | 0.00 |
| 3,700.00 | 15.18 | 117.14 | 3,619.91 | -289.44 | 564.62 | -122.53 | 0.00 | 0.00 | 0.00 |
| 3,800.00 | 15.18 | 117.14 | 3,716.42 | -301.39 | 587.92 | -127.59 | 0.00 | 0.00 | 0.00 |
| 3,900.00 | 15.18 | 117.14 | 3,812.93 | -313.34 | 611.23 | -132.65 | 0.00 | 0.00 | 0.00 |
| 4,000.00 | 15.18 | 117.14 | 3,909.44 | -325.28 | 634.53 | -137.71 | 0.00 | 0.00 | 0.00 |
| 4,100.00 | 15.18 | 117.14 | 4,005.95 | -337.23 | 657.84 | -142.76 | 0.00 | 0.00 | 0.00 |
| 4,200.00 | 15.18 | 117.14 | 4,102.46 | -349.18 | 681.14 | -147.82 | 0.00 | 0.00 | 0.00 |
| 4,300.00 | 15.18 | 117.14 | 4,198.97 | -361.12 | 704.45 | -152.88 | 0.00 | 0.00 | 0.00 |
| 4,400.00 | 15.18 | 117.14 | 4,295.48 | -373.07 | 727.75 | -157.94 | 0.00 | 0.00 | 0.00 |
| 4,500.00 | 15.18 | 117.14 | 4,391.99 | -385.02 | 751.06 | -163.00 | 0.00 | 0.00 | 0.00 |
| 4,600.00 | 15.18 | 117.14 | 4,488.50 | -396.97 | 774.37 | -168.05 | 0.00 | 0.00 | 0.00 |
| 4,625.38 | 15.18 | 117.14 | 4,513.00 | -400.00 | 780.28 | -169.34 | 0.00 | 0.00 | 0.00 |

Anadarko Petroleum Corp

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|--------------------------|
| Database: | edmp | Local Co-ordinate Reference: | Well BROWN 14N-26HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL + 25' RKB @ 5045.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL + 25' RKB @ 5045.00ft |
| Site: | WELD_BROWN 5 PAD | North Reference: | True |
| Well: | BROWN 14N-26HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | BROWN 14N-26HZ | | |
| Design: | BROWN 14N-26HZ (wp02) | | |

| Planned Survey | | | | | | | | | |
|---|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| SUSSEX | | | | | | | | | |
| 4,700.00 | 15.18 | 117.14 | 4,585.01 | -408.91 | 797.67 | -173.11 | 0.00 | 0.00 | 0.00 |
| 4,800.00 | 15.18 | 117.14 | 4,681.52 | -420.86 | 820.98 | -178.17 | 0.00 | 0.00 | 0.00 |
| 4,900.00 | 15.18 | 117.14 | 4,778.03 | -432.81 | 844.28 | -183.23 | 0.00 | 0.00 | 0.00 |
| 5,000.00 | 15.18 | 117.14 | 4,874.54 | -444.75 | 867.59 | -188.28 | 0.00 | 0.00 | 0.00 |
| 5,100.00 | 15.18 | 117.14 | 4,971.05 | -456.70 | 890.89 | -193.34 | 0.00 | 0.00 | 0.00 |
| 5,200.00 | 15.18 | 117.14 | 5,067.56 | -468.65 | 914.20 | -198.40 | 0.00 | 0.00 | 0.00 |
| 5,300.00 | 15.18 | 117.14 | 5,164.07 | -480.60 | 937.50 | -203.46 | 0.00 | 0.00 | 0.00 |
| 5,400.00 | 15.18 | 117.14 | 5,260.58 | -492.54 | 960.81 | -208.52 | 0.00 | 0.00 | 0.00 |
| 5,500.00 | 15.18 | 117.14 | 5,357.09 | -504.49 | 984.12 | -213.57 | 0.00 | 0.00 | 0.00 |
| 5,600.00 | 15.18 | 117.14 | 5,453.60 | -516.44 | 1,007.42 | -218.63 | 0.00 | 0.00 | 0.00 |
| 5,700.00 | 15.18 | 117.14 | 5,550.11 | -528.39 | 1,030.73 | -223.69 | 0.00 | 0.00 | 0.00 |
| 5,800.00 | 15.18 | 117.14 | 5,646.62 | -540.33 | 1,054.03 | -228.75 | 0.00 | 0.00 | 0.00 |
| 5,900.00 | 15.18 | 117.14 | 5,743.13 | -552.28 | 1,077.34 | -233.81 | 0.00 | 0.00 | 0.00 |
| 6,000.00 | 15.18 | 117.14 | 5,839.64 | -564.23 | 1,100.64 | -238.86 | 0.00 | 0.00 | 0.00 |
| 6,100.00 | 15.18 | 117.14 | 5,936.15 | -576.17 | 1,123.95 | -243.92 | 0.00 | 0.00 | 0.00 |
| 6,200.00 | 15.18 | 117.14 | 6,032.66 | -588.12 | 1,147.25 | -248.98 | 0.00 | 0.00 | 0.00 |
| 6,300.00 | 15.18 | 117.14 | 6,129.17 | -600.07 | 1,170.56 | -254.04 | 0.00 | 0.00 | 0.00 |
| 6,400.00 | 15.18 | 117.14 | 6,225.68 | -612.02 | 1,193.86 | -259.09 | 0.00 | 0.00 | 0.00 |
| 6,500.00 | 15.18 | 117.14 | 6,322.19 | -623.96 | 1,217.17 | -264.15 | 0.00 | 0.00 | 0.00 |
| 6,600.00 | 15.18 | 117.14 | 6,418.70 | -635.91 | 1,240.48 | -269.21 | 0.00 | 0.00 | 0.00 |
| 6,700.00 | 15.18 | 117.14 | 6,515.20 | -647.86 | 1,263.78 | -274.27 | 0.00 | 0.00 | 0.00 |
| 6,800.00 | 15.18 | 117.14 | 6,611.71 | -659.80 | 1,287.09 | -279.33 | 0.00 | 0.00 | 0.00 |
| 6,818.45 | 15.18 | 117.14 | 6,629.52 | -662.01 | 1,291.39 | -280.26 | 0.00 | 0.00 | 0.00 |
| Start DLS 10.00 TFO -116.32 | | | | | | | | | |
| 6,900.00 | 13.64 | 84.51 | 6,708.63 | -665.97 | 1,310.49 | -278.80 | 10.00 | -1.90 | -40.02 |
| 7,000.00 | 17.59 | 49.61 | 6,805.13 | -655.02 | 1,333.80 | -261.85 | 10.00 | 3.96 | -34.89 |
| 7,100.00 | 25.08 | 31.06 | 6,898.31 | -627.00 | 1,356.30 | -228.71 | 10.00 | 7.49 | -18.55 |
| 7,200.00 | 33.84 | 21.12 | 6,985.35 | -582.76 | 1,377.32 | -180.39 | 10.00 | 8.75 | -9.94 |
| 7,300.00 | 43.09 | 14.97 | 7,063.60 | -523.64 | 1,396.22 | -118.35 | 10.00 | 9.25 | -6.15 |
| 7,395.62 | 52.15 | 10.82 | 7,128.00 | -454.85 | 1,411.78 | -47.94 | 10.00 | 9.48 | -4.34 |
| SHARON SPRINGS | | | | | | | | | |
| 7,400.00 | 52.57 | 10.66 | 7,130.68 | -451.45 | 1,412.43 | -44.48 | 10.00 | 9.55 | -3.74 |
| 7,500.00 | 62.17 | 7.33 | 7,184.55 | -368.36 | 1,425.45 | 38.97 | 10.00 | 9.60 | -3.33 |
| 7,539.95 | 66.02 | 6.17 | 7,202.00 | -332.68 | 1,429.66 | 74.43 | 10.00 | 9.65 | -2.90 |
| NIOBRARA | | | | | | | | | |
| 7,600.00 | 71.84 | 4.55 | 7,223.58 | -276.92 | 1,434.88 | 129.47 | 10.00 | 9.68 | -2.70 |
| 7,631.99 | 74.94 | 3.73 | 7,232.73 | -246.35 | 1,437.09 | 159.46 | 10.00 | 9.70 | -2.56 |
| BROWN 14N-26HZ HEEL | | | | | | | | | |
| 7,700.00 | 81.54 | 2.06 | 7,246.58 | -179.89 | 1,440.44 | 224.27 | 10.00 | 9.71 | -2.45 |
| 7,786.83 | 89.98 | 0.01 | 7,253.00 | -93.39 | 1,442.00 | 307.84 | 10.00 | 9.72 | -2.36 |
| NIOBRARA C TL (HEEL) - 7" | | | | | | | | | |
| 7,787.22 | 89.98 | 0.01 | 7,253.00 | -93.00 | 1,442.00 | 308.22 | 0.96 | -0.02 | 0.96 |
| Start 5124.16 hold at 7787.22 MD | | | | | | | | | |
| 7,800.00 | 89.98 | 0.01 | 7,253.01 | -80.22 | 1,442.00 | 320.50 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 89.98 | 0.01 | 7,253.04 | 19.78 | 1,442.03 | 416.63 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 89.98 | 0.01 | 7,253.08 | 119.78 | 1,442.05 | 512.76 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 89.98 | 0.01 | 7,253.12 | 219.78 | 1,442.08 | 608.89 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 89.98 | 0.01 | 7,253.16 | 319.78 | 1,442.10 | 705.02 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 89.98 | 0.01 | 7,253.20 | 419.78 | 1,442.12 | 801.15 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 89.98 | 0.01 | 7,253.24 | 519.78 | 1,442.15 | 897.28 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 89.98 | 0.01 | 7,253.28 | 619.78 | 1,442.17 | 993.41 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 89.98 | 0.01 | 7,253.32 | 719.78 | 1,442.20 | 1,089.54 | 0.00 | 0.00 | 0.00 |

Anadarko Petroleum Corp

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|--------------------------|
| Database: | edmp | Local Co-ordinate Reference: | Well BROWN 14N-26HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL + 25' RKB @ 5045.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL + 25' RKB @ 5045.00ft |
| Site: | WELD_BROWN 5 PAD | North Reference: | True |
| Well: | BROWN 14N-26HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | BROWN 14N-26HZ | | |
| Design: | BROWN 14N-26HZ (wp02) | | |

| Planned Survey | | | | | | | | | |
|-------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100usft) | Build Rate (°/100usft) | Turn Rate (°/100usft) |
| 8,700.00 | 89.98 | 0.01 | 7,253.36 | 819.78 | 1,442.22 | 1,185.67 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 89.98 | 0.01 | 7,253.40 | 919.78 | 1,442.24 | 1,281.80 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 89.98 | 0.01 | 7,253.43 | 1,019.78 | 1,442.27 | 1,377.93 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 89.98 | 0.01 | 7,253.47 | 1,119.78 | 1,442.29 | 1,474.06 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 89.98 | 0.01 | 7,253.51 | 1,219.78 | 1,442.32 | 1,570.19 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 89.98 | 0.01 | 7,253.55 | 1,319.78 | 1,442.34 | 1,666.32 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 89.98 | 0.01 | 7,253.59 | 1,419.78 | 1,442.37 | 1,762.45 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 89.98 | 0.01 | 7,253.63 | 1,519.78 | 1,442.39 | 1,858.58 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 89.98 | 0.01 | 7,253.67 | 1,619.78 | 1,442.41 | 1,954.71 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 89.98 | 0.01 | 7,253.71 | 1,719.78 | 1,442.44 | 2,050.84 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 89.98 | 0.01 | 7,253.75 | 1,819.78 | 1,442.46 | 2,146.97 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 89.98 | 0.01 | 7,253.79 | 1,919.78 | 1,442.49 | 2,243.10 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 89.98 | 0.01 | 7,253.82 | 2,019.78 | 1,442.51 | 2,339.23 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 89.98 | 0.01 | 7,253.86 | 2,119.78 | 1,442.54 | 2,435.36 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 89.98 | 0.01 | 7,253.90 | 2,219.78 | 1,442.56 | 2,531.49 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 89.98 | 0.01 | 7,253.94 | 2,319.78 | 1,442.58 | 2,627.62 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 89.98 | 0.01 | 7,253.98 | 2,419.78 | 1,442.61 | 2,723.75 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 89.98 | 0.01 | 7,254.02 | 2,519.78 | 1,442.63 | 2,819.88 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 89.98 | 0.01 | 7,254.06 | 2,619.78 | 1,442.66 | 2,916.01 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 89.98 | 0.01 | 7,254.10 | 2,719.78 | 1,442.68 | 3,012.14 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 89.98 | 0.01 | 7,254.14 | 2,819.78 | 1,442.70 | 3,108.27 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 89.98 | 0.01 | 7,254.18 | 2,919.78 | 1,442.73 | 3,204.40 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 89.98 | 0.01 | 7,254.22 | 3,019.78 | 1,442.75 | 3,300.53 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 89.98 | 0.01 | 7,254.25 | 3,119.78 | 1,442.78 | 3,396.66 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 89.98 | 0.01 | 7,254.29 | 3,219.78 | 1,442.80 | 3,492.79 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 89.98 | 0.01 | 7,254.33 | 3,319.78 | 1,442.83 | 3,588.92 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 89.98 | 0.01 | 7,254.37 | 3,419.78 | 1,442.85 | 3,685.05 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 89.98 | 0.01 | 7,254.41 | 3,519.78 | 1,442.87 | 3,781.18 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 89.98 | 0.01 | 7,254.45 | 3,619.78 | 1,442.90 | 3,877.31 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 89.98 | 0.01 | 7,254.49 | 3,719.78 | 1,442.92 | 3,973.44 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 89.98 | 0.01 | 7,254.53 | 3,819.78 | 1,442.95 | 4,069.57 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 89.98 | 0.01 | 7,254.57 | 3,919.78 | 1,442.97 | 4,165.70 | 0.00 | 0.00 | 0.00 |
| 11,900.00 | 89.98 | 0.01 | 7,254.61 | 4,019.78 | 1,442.99 | 4,261.83 | 0.00 | 0.00 | 0.00 |
| 12,000.00 | 89.98 | 0.01 | 7,254.64 | 4,119.78 | 1,443.02 | 4,357.96 | 0.00 | 0.00 | 0.00 |
| 12,100.00 | 89.98 | 0.01 | 7,254.68 | 4,219.78 | 1,443.04 | 4,454.09 | 0.00 | 0.00 | 0.00 |
| 12,200.00 | 89.98 | 0.01 | 7,254.72 | 4,319.78 | 1,443.07 | 4,550.22 | 0.00 | 0.00 | 0.00 |
| 12,300.00 | 89.98 | 0.01 | 7,254.76 | 4,419.78 | 1,443.09 | 4,646.35 | 0.00 | 0.00 | 0.00 |
| 12,400.00 | 89.98 | 0.01 | 7,254.80 | 4,519.78 | 1,443.12 | 4,742.48 | 0.00 | 0.00 | 0.00 |
| 12,500.00 | 89.98 | 0.01 | 7,254.84 | 4,619.78 | 1,443.14 | 4,838.61 | 0.00 | 0.00 | 0.00 |
| 12,600.00 | 89.98 | 0.01 | 7,254.88 | 4,719.78 | 1,443.16 | 4,934.74 | 0.00 | 0.00 | 0.00 |
| 12,700.00 | 89.98 | 0.01 | 7,254.92 | 4,819.78 | 1,443.19 | 5,030.87 | 0.00 | 0.00 | 0.00 |
| 12,800.00 | 89.98 | 0.01 | 7,254.96 | 4,919.78 | 1,443.21 | 5,127.00 | 0.00 | 0.00 | 0.00 |
| 12,900.00 | 89.98 | 0.01 | 7,255.00 | 5,019.78 | 1,443.24 | 5,223.13 | 0.00 | 0.00 | 0.00 |
| 12,911.39 | 89.98 | 0.01 | 7,255.00 | 5,031.16 | 1,443.24 | 5,234.07 | 0.00 | 0.00 | 0.00 |
| TD at 12911.39 - BROWN 14N-26HZ BHL | | | | | | | | | |

Anadarko Petroleum Corp

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|--------------------------|
| Database: | edmp | Local Co-ordinate Reference: | Well BROWN 14N-26HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | GL + 25' RKB @ 5045.00ft |
| Project: | COLORADO NORTHERN ZONE - 83 | MD Reference: | GL + 25' RKB @ 5045.00ft |
| Site: | WELD_BROWN 5 PAD | North Reference: | True |
| Well: | BROWN 14N-26HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | BROWN 14N-26HZ | | |
| Design: | BROWN 14N-26HZ (wp02) | | |

| Design Targets | | | | | | | | | |
|---------------------------|-----------|----------|----------|----------|----------|--------------|--------------|-----------|-------------|
| Target Name | Dip Angle | Dip Dir. | TVD | +N/-S | +E/-W | Northing | Easting | Latitude | Longitude |
| - hit/miss target | (°) | (°) | (ft) | (ft) | (ft) | (usft) | (usft) | | |
| - Shape | | | | | | | | | |
| BROWN 14N-26HZ BHL | 0.00 | 0.00 | 7,255.00 | 5,031.16 | 1,443.24 | 1,313,041.19 | 3,210,433.93 | 40.190241 | -104.746752 |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | | |
|----------------|----------------|--------|--|-----------------|---------------|
| Measured Depth | Vertical Depth | Name | | Casing Diameter | Hole Diameter |
| (ft) | (ft) | | | (") | (") |
| 700.00 | 700.00 | 9 5/8" | | 9-5/8 | 12-1/4 |
| 7,786.83 | 7,253.00 | 7" | | 7 | 8-3/4 |

| Formations | | | | | |
|----------------|----------------|----------------------|--|-----------|------|
| Measured Depth | Vertical Depth | Name | | Lithology | Dip |
| (ft) | (ft) | | | | (°) |
| 3,394.42 | 3,325.00 | PARKMAN | | | 0.00 |
| 4,625.38 | 4,513.00 | SUSSEX | | | 0.00 |
| 7,395.62 | 7,128.00 | SHARON SPRINGS | | | 0.00 |
| 7,539.95 | 7,202.00 | NIOBRARA | | | 0.00 |
| 7,786.83 | 7,253.00 | NIOBRARA C TL (HEEL) | | | 0.00 |

| Plan Annotations | | | | | |
|------------------|----------------|-------------------|----------|----------------------------------|--|
| Measured Depth | Vertical Depth | Local Coordinates | | Comment | |
| (ft) | (ft) | +N/-S | +E/-W | | |
| (ft) | (ft) | (ft) | (ft) | | |
| 900.00 | 900.00 | 0.00 | 0.00 | Start Build 2.00 | |
| 1,659.12 | 1,650.27 | -45.61 | 88.98 | Start 5159.33 hold at 1659.12 MD | |
| 6,818.45 | 6,629.52 | -662.01 | 1,291.39 | Start DLS 10.00 TFO -116.32 | |
| 7,787.22 | 7,253.00 | -93.00 | 1,442.00 | Start 5124.16 hold at 7787.22 MD | |
| 12,911.39 | 7,255.00 | 5,031.16 | 1,443.24 | TD at 12911.39 | |