

US ROCKIES REGION PLANNING

COLORADO-NAD83-UTMFT13N

WELD_FARLEY 15-23HZ PAD

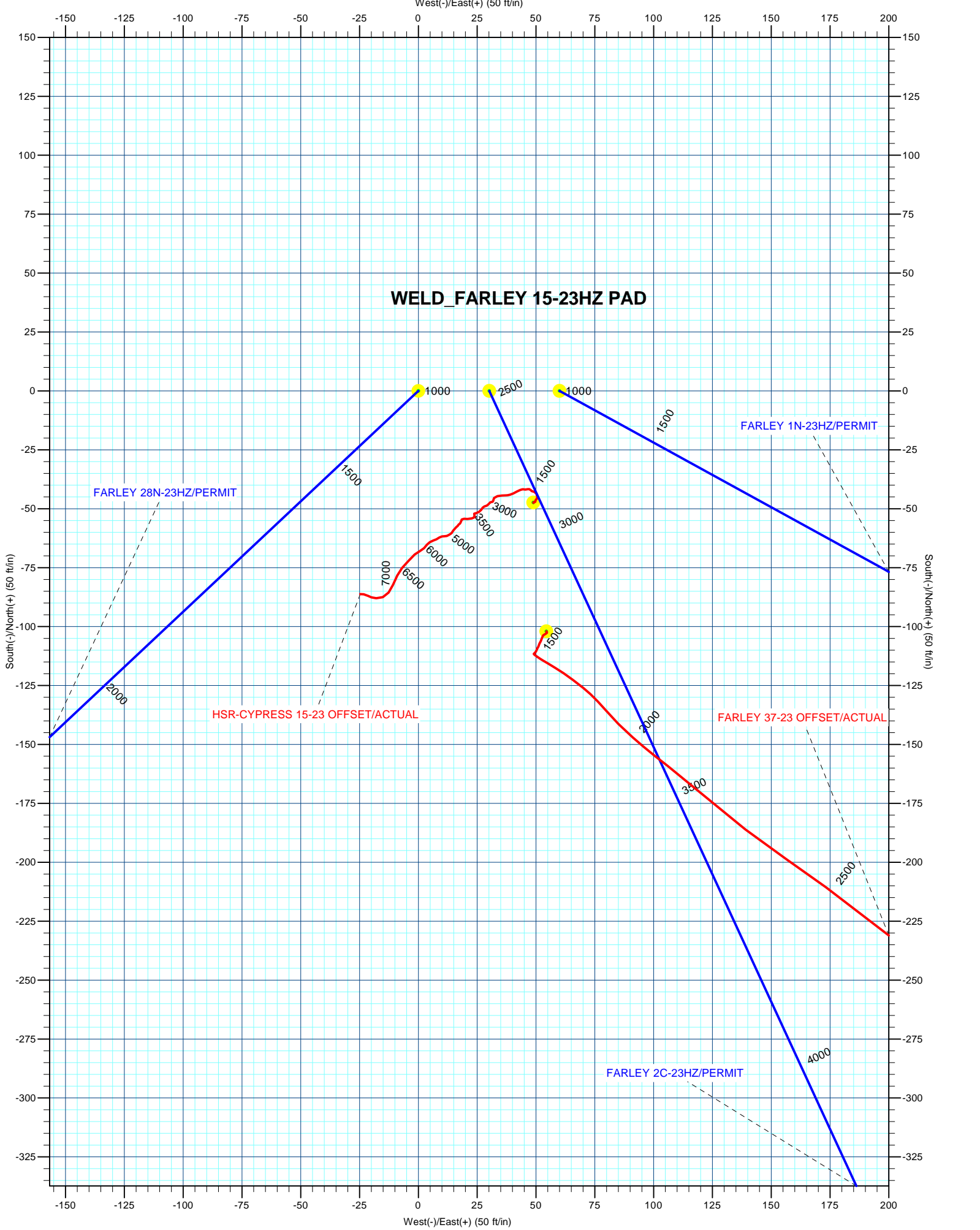
FARLEY 28N-23HZ

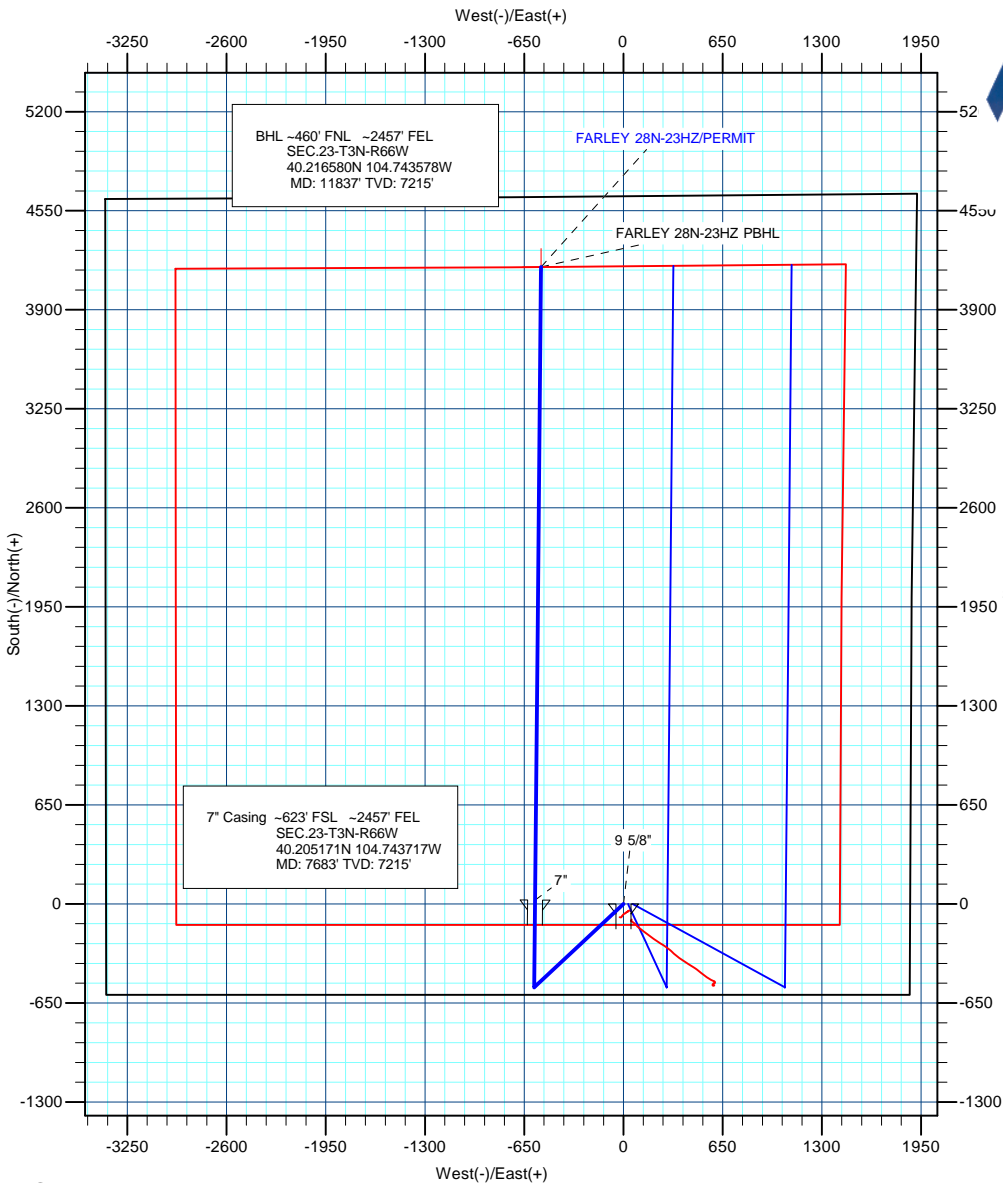
Wellbore #1

Plan: PERMIT

Standard Planning Report

22 May, 2013





Weatherford

Project: COLORADO-NAD83-UTMFT13N
 Site: WELD_FARLEY 15-23HZ PAD
 Well: FARLEY 28N-23HZ
 Wellbore: Wellbore #1
 Section: Sec.23-T3N-R66W
 SHL: 597' FSL 1879' FEL
 Design: PERMIT
 Latitude: 40.205100
 Longitude: -104.741645
 GL: 4978.00
 KB: 17' RKB+4978' GL @ 4995.00ft

T
M

Azimuths to True North
Magnetic North: 8.53°

Magnetic Field
Strength: 52855.1nT
Dip Angle: 66.84°
Date: 5/15/2013
Model: IGRF200510

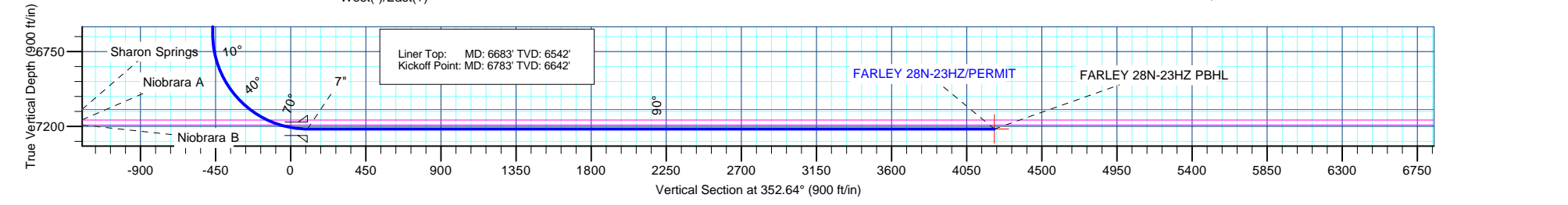
| WELL DETAILS: FARLEY 28N-23HZ | | | | | | |
|-------------------------------|-------|-------------|-----------------------|-----------|-------------|------|
| +N/-S | +E/-W | Northing | Ground Level: Easting | 4978.00 | Latitude | Slot |
| 0.00 | 0.00 | 14601524.98 | 1712552.34 | 40.205100 | -104.741645 | |

| ANNOTATIONS | | | | | | | | | | |
|-------------|-------|--------|---------|---------|---------|-------|--------|---------|----------------------------------|--|
| MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Annotation | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| 1000.00 | 0.00 | 0.00 | 1000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | Start Build 2.00 | |
| 2337.00 | 26.74 | 226.87 | 2288.99 | -209.44 | -223.60 | 2.00 | 226.87 | -179.09 | Start 416.56 hold at 2337.00 MD | |
| 2753.57 | 26.74 | 226.87 | 2661.01 | -337.56 | -360.40 | 0.00 | 0.00 | -288.65 | Start Drop -2.00 | |
| 4090.57 | 0.00 | 0.00 | 3950.00 | -547.00 | -584.00 | 2.00 | 180.00 | -467.74 | Start 2692.04 hold at 4090.57 MD | |
| 6782.61 | 0.00 | 0.00 | 6642.04 | -547.00 | -584.00 | 0.00 | 0.00 | -467.74 | Start Build 10.00 | |
| 7682.61 | 90.00 | 0.54 | 7215.00 | 25.93 | -578.62 | 10.00 | 0.54 | 99.80 | Start 4154.77 hold at 7682.61 MD | |
| 11837.38 | 90.00 | 0.54 | 7215.00 | 4180.52 | -539.63 | 0.00 | 0.00 | 4215.21 | TD at 11837.38 | |

| WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG) | | | | | | |
|---|---------|---------|---------|-----------|-------------|-------|
| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape |
| FARLEY 28N-23HZ PBHL | 7215.00 | 4180.52 | -539.63 | 40.216580 | -104.743578 | Point |

| FORMATION TOP DETAILS | | |
|-----------------------|---------|----------------|
| TVDPath | MDPath | Formation |
| 699.00 | 699.00 | Fox Hills Base |
| 4081.00 | 4221.57 | Parkman |
| 4505.00 | 4645.57 | Sussex |
| 7098.00 | 7309.92 | Sharon Springs |
| 7161.00 | 7431.86 | Niobrara A |
| 7192.00 | 7519.72 | Niobrara B |

| CASING DETAILS | | | |
|----------------|---------|--------|-------|
| TVD | MD | Name | Size |
| 749.00 | 749.00 | 9 5/8" | 9-5/8 |
| 7215.00 | 7682.61 | 7" | 7 |



Anadarko Petroleum Corp

Planning Report

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|------------------|----------------------------|-------------------------------------|------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well FARLEY 28N-23HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Project: | COLORADO-NAD83-UTMFT13N | MD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Site: | WELD_FARLEY 15-23HZ PAD | North Reference: | True |
| Well: | FARLEY 28N-23HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | PERMIT | | |

| | | | |
|--------------------|--|----------------------|----------------|
| Project | COLORADO-NAD83-UTMFT13N | | |
| Map System: | Universal Transverse Mercator (US Survey Feet) | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Zone 13N (108 W to 102 W) | | |

| | | | | | |
|------------------------------|--|---------------------|--------------------|--------------------------|-------------|
| Site | WELD_FARLEY 15-23HZ PAD, Sec.23-T3N-R66W | | | | |
| Site Position: | | Northing: | 14,601,524.98 usft | Latitude: | 40.205100 |
| From: | Lat/Long | Easting: | 1,712,552.33 usft | Longitude: | -104.741645 |
| Position Uncertainty: | 0.00 ft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.17 ° |

| | | | | | | |
|-----------------------------|-----------------|---------|----------------------------|--------------------|----------------------|-------------|
| Well | FARLEY 28N-23HZ | | | | | |
| Well Position | +N/-S | 0.00 ft | Northing: | 14,601,524.98 usft | Latitude: | 40.205100 |
| | +E/-W | 0.00 ft | Easting: | 1,712,552.33 usft | Longitude: | -104.741645 |
| Position Uncertainty | | 0.00 ft | Wellhead Elevation: | | Ground Level: | 4,978.00 ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | Wellbore #1 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | IGRF200510 | 5/15/2013 | 8.53 | 66.84 | 52,855 |

| | | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|--|
| Design | PERMIT | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 | |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) | |
| | 0.00 | 0.00 | 0.00 | 352.64 | |

| 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 | |
| 1,000.00 | 0.00 | 0.00 | 1,000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,337.00 | 26.74 | 226.87 | 2,288.99 | -209.44 | -223.60 | 2.00 | 2.00 | 0.00 | 226.87 | |
| 2,753.57 | 26.74 | 226.87 | 2,661.01 | -337.56 | -360.40 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 4,090.57 | 0.00 | 0.00 | 3,950.00 | -547.00 | -584.00 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 6,782.61 | 0.00 | 0.00 | 6,642.04 | -547.00 | -584.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,682.61 | 90.00 | 0.54 | 7,215.00 | 25.93 | -578.62 | 10.00 | 10.00 | 0.00 | 0.54 | |
| 11,837.38 | 90.00 | 0.54 | 7,215.00 | 4,180.52 | -539.63 | 0.00 | 0.00 | 0.00 | 0.00 | FARLEY 28N-23HZ P |

Anadarko Petroleum Corp

Planning Report

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|------------------|----------------------------|-------------------------------------|------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well FARLEY 28N-23HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Project: | COLORADO-NAD83-UTMFT13N | MD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Site: | WELD_FARLEY 15-23HZ PAD | North Reference: | True |
| Well: | FARLEY 28N-23HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | PERMIT | | |

| 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 | 0.00 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00 | 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 | 0.00 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00 | 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 | 0.00 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00 | 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 | 0.00 |
| 699.00 | 0.00 | 0.00 | 699.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fox Hills Base | | | | | | | | | | |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 749.00 | 0.00 | 0.00 | 749.00 | 0.00 | 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 | 0.00 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00 | 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 | 0.00 |
| Start Build 2.00 | | | | | | | | | | |
| 1,100.00 | 2.00 | 226.87 | 1,099.98 | -1.19 | -1.27 | -1.02 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,200.00 | 4.00 | 226.87 | 1,199.84 | -4.77 | -5.09 | -4.08 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,300.00 | 6.00 | 226.87 | 1,299.45 | -10.73 | -11.45 | -9.17 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,400.00 | 8.00 | 226.87 | 1,398.70 | -19.06 | -20.35 | -16.30 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,500.00 | 10.00 | 226.87 | 1,497.47 | -29.75 | -31.76 | -25.44 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,600.00 | 12.00 | 226.87 | 1,595.62 | -42.80 | -45.69 | -36.59 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,700.00 | 14.00 | 226.87 | 1,693.06 | -58.17 | -62.11 | -49.74 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,800.00 | 16.00 | 226.87 | 1,789.64 | -75.86 | -81.00 | -64.87 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1,900.00 | 18.00 | 226.87 | 1,885.27 | -95.85 | -102.33 | -81.96 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,000.00 | 20.00 | 226.87 | 1,979.82 | -118.11 | -126.09 | -100.99 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,100.00 | 22.00 | 226.87 | 2,073.17 | -142.60 | -152.25 | -121.94 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,200.00 | 24.00 | 226.87 | 2,165.21 | -169.31 | -180.76 | -144.78 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,300.00 | 26.00 | 226.87 | 2,255.84 | -198.20 | -211.61 | -169.48 | 2.00 | 2.00 | 0.00 | 0.00 |
| 2,337.00 | 26.74 | 226.87 | 2,288.99 | -209.44 | -223.60 | -179.09 | 2.00 | 2.00 | 0.00 | 0.00 |
| Start 416.56 hold at 2337.00 MD | | | | | | | | | | |
| 2,400.00 | 26.74 | 226.87 | 2,345.25 | -228.81 | -244.29 | -195.66 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,500.00 | 26.74 | 226.87 | 2,434.56 | -259.57 | -277.13 | -221.96 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,600.00 | 26.74 | 226.87 | 2,523.86 | -290.33 | -309.97 | -248.26 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,700.00 | 26.74 | 226.87 | 2,613.17 | -321.09 | -342.81 | -274.56 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2,753.57 | 26.74 | 226.87 | 2,661.01 | -337.56 | -360.40 | -288.65 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start Drop -2.00 | | | | | | | | | | |
| 2,800.00 | 25.81 | 226.87 | 2,702.64 | -351.62 | -375.40 | -300.66 | 2.00 | -2.00 | 0.00 | 0.00 |
| 2,900.00 | 23.81 | 226.87 | 2,793.41 | -380.30 | -406.03 | -325.19 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,000.00 | 21.81 | 226.87 | 2,885.58 | -406.80 | -434.32 | -347.85 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,100.00 | 19.81 | 226.87 | 2,979.05 | -431.09 | -460.25 | -368.62 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,200.00 | 17.81 | 226.87 | 3,073.71 | -453.13 | -483.78 | -387.47 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,300.00 | 15.81 | 226.87 | 3,169.43 | -472.90 | -504.89 | -404.38 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,400.00 | 13.81 | 226.87 | 3,266.10 | -490.38 | -523.55 | -419.32 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,500.00 | 11.81 | 226.87 | 3,363.61 | -505.53 | -539.73 | -432.28 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,600.00 | 9.81 | 226.87 | 3,461.83 | -518.36 | -553.42 | -443.24 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,700.00 | 7.81 | 226.87 | 3,560.64 | -528.83 | -564.60 | -452.20 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,800.00 | 5.81 | 226.87 | 3,659.93 | -536.94 | -573.25 | -459.13 | 2.00 | -2.00 | 0.00 | 0.00 |
| 3,900.00 | 3.81 | 226.87 | 3,759.57 | -542.67 | -579.38 | -464.03 | 2.00 | -2.00 | 0.00 | 0.00 |
| 4,000.00 | 1.81 | 226.87 | 3,859.45 | -546.02 | -582.96 | -466.90 | 2.00 | -2.00 | 0.00 | 0.00 |
| 4,090.57 | 0.00 | 0.00 | 3,950.00 | -547.00 | -584.00 | -467.74 | 2.00 | -2.00 | 0.00 | 0.00 |
| Start 2692.04 hold at 4090.57 MD | | | | | | | | | | |
| 4,100.00 | 0.00 | 0.00 | 3,959.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | 0.00 |

Anadarko Petroleum Corp

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well FARLEY 28N-23HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Project: | COLORADO-NAD83-UTMFT13N | MD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Site: | WELD_FARLEY 15-23HZ PAD | North Reference: | True |
| Well: | FARLEY 28N-23HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | PERMIT | | |

| 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) | |
| 4,200.00 | 0.00 | 0.00 | 4,059.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 4,221.57 | 0.00 | 0.00 | 4,081.00 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| Parkman | | | | | | | | | | |
| 4,300.00 | 0.00 | 0.00 | 4,159.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 4,400.00 | 0.00 | 0.00 | 4,259.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 4,500.00 | 0.00 | 0.00 | 4,359.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 4,600.00 | 0.00 | 0.00 | 4,459.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 4,645.57 | 0.00 | 0.00 | 4,505.00 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| Sussex | | | | | | | | | | |
| 4,700.00 | 0.00 | 0.00 | 4,559.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 4,800.00 | 0.00 | 0.00 | 4,659.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 4,900.00 | 0.00 | 0.00 | 4,759.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,000.00 | 0.00 | 0.00 | 4,859.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,100.00 | 0.00 | 0.00 | 4,959.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,200.00 | 0.00 | 0.00 | 5,059.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,300.00 | 0.00 | 0.00 | 5,159.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,400.00 | 0.00 | 0.00 | 5,259.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,500.00 | 0.00 | 0.00 | 5,359.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,600.00 | 0.00 | 0.00 | 5,459.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,700.00 | 0.00 | 0.00 | 5,559.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,800.00 | 0.00 | 0.00 | 5,659.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 5,900.00 | 0.00 | 0.00 | 5,759.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,000.00 | 0.00 | 0.00 | 5,859.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,100.00 | 0.00 | 0.00 | 5,959.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,200.00 | 0.00 | 0.00 | 6,059.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,300.00 | 0.00 | 0.00 | 6,159.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,400.00 | 0.00 | 0.00 | 6,259.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,500.00 | 0.00 | 0.00 | 6,359.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,600.00 | 0.00 | 0.00 | 6,459.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,700.00 | 0.00 | 0.00 | 6,559.43 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| 6,782.61 | 0.00 | 0.00 | 6,642.04 | -547.00 | -584.00 | -467.74 | 0.00 | 0.00 | 0.00 | |
| Start Build 10.00 | | | | | | | | | | |
| 6,800.00 | 1.74 | 0.54 | 6,659.43 | -546.74 | -584.00 | -467.47 | 10.00 | 10.00 | 0.00 | |
| 6,850.00 | 6.74 | 0.54 | 6,709.28 | -543.04 | -583.96 | -463.81 | 10.00 | 10.00 | 0.00 | |
| 6,900.00 | 11.74 | 0.54 | 6,758.61 | -535.02 | -583.89 | -455.86 | 10.00 | 10.00 | 0.00 | |
| 6,950.00 | 16.74 | 0.54 | 6,807.06 | -522.72 | -583.77 | -443.69 | 10.00 | 10.00 | 0.00 | |
| 7,000.00 | 21.74 | 0.54 | 6,854.25 | -506.25 | -583.62 | -427.37 | 10.00 | 10.00 | 0.00 | |
| 7,050.00 | 26.74 | 0.54 | 6,899.83 | -485.73 | -583.42 | -407.05 | 10.00 | 10.00 | 0.00 | |
| 7,100.00 | 31.74 | 0.54 | 6,943.45 | -461.32 | -583.20 | -382.86 | 10.00 | 10.00 | 0.00 | |
| 7,150.00 | 36.74 | 0.54 | 6,984.77 | -433.20 | -582.93 | -355.01 | 10.00 | 10.00 | 0.00 | |
| 7,200.00 | 41.74 | 0.54 | 7,023.48 | -401.58 | -582.64 | -323.69 | 10.00 | 10.00 | 0.00 | |
| 7,250.00 | 46.74 | 0.54 | 7,059.29 | -366.71 | -582.31 | -289.15 | 10.00 | 10.00 | 0.00 | |
| 7,300.00 | 51.74 | 0.54 | 7,091.93 | -328.85 | -581.95 | -251.64 | 10.00 | 10.00 | 0.00 | |
| 7,309.92 | 52.73 | 0.54 | 7,098.00 | -321.01 | -581.88 | -243.88 | 10.00 | 10.00 | 0.00 | |
| Sharon Springs | | | | | | | | | | |
| 7,350.00 | 56.74 | 0.54 | 7,121.14 | -288.29 | -581.57 | -211.47 | 10.00 | 10.00 | 0.00 | |
| 7,400.00 | 61.74 | 0.54 | 7,146.70 | -245.34 | -581.17 | -168.92 | 10.00 | 10.00 | 0.00 | |
| 7,431.86 | 64.93 | 0.54 | 7,161.00 | -216.88 | -580.90 | -140.73 | 10.00 | 10.00 | 0.00 | |
| Niobrara A | | | | | | | | | | |
| 7,450.00 | 66.74 | 0.54 | 7,168.43 | -200.33 | -580.75 | -124.33 | 10.00 | 10.00 | 0.00 | |
| 7,500.00 | 71.74 | 0.54 | 7,186.14 | -153.59 | -580.31 | -78.04 | 10.00 | 10.00 | 0.00 | |
| 7,519.72 | 73.71 | 0.54 | 7,192.00 | -134.76 | -580.13 | -59.39 | 10.00 | 10.00 | 0.00 | |
| Niobrara B | | | | | | | | | | |

Anadarko Petroleum Corp

Planning Report

| | | | |
|------------------|----------------------------|-------------------------------------|------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well FARLEY 28N-23HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Project: | COLORADO-NAD83-UTMFT13N | MD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Site: | WELD_FARLEY 15-23HZ PAD | North Reference: | True |
| Well: | FARLEY 28N-23HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | PERMIT | | |

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) |
|--|-----------------|-------------|---------------------|------------|------------|-----------------------|-------------------------|------------------------|-----------------------|
| 7,550.00 | 76.74 | 0.54 | 7,199.72 | -105.49 | -579.86 | -30.39 | 10.00 | 10.00 | 0.00 |
| 7,600.00 | 81.74 | 0.54 | 7,209.05 | -56.39 | -579.40 | 18.25 | 10.00 | 10.00 | 0.00 |
| 7,650.00 | 86.74 | 0.54 | 7,214.07 | -6.66 | -578.93 | 67.51 | 10.00 | 10.00 | 0.00 |
| 7,682.61 | 90.00 | 0.54 | 7,215.00 | 25.93 | -578.62 | 99.80 | 10.00 | 10.00 | 0.00 |
| Start 4154.77 hold at 7682.61 MD - 7" | | | | | | | | | |
| 7,700.00 | 90.00 | 0.54 | 7,215.00 | 43.32 | -578.46 | 117.02 | 0.00 | 0.00 | 0.00 |
| 7,800.00 | 90.00 | 0.54 | 7,215.00 | 143.32 | -577.52 | 216.07 | 0.00 | 0.00 | 0.00 |
| 7,900.00 | 90.00 | 0.54 | 7,215.00 | 243.31 | -576.58 | 315.13 | 0.00 | 0.00 | 0.00 |
| 8,000.00 | 90.00 | 0.54 | 7,215.00 | 343.31 | -575.64 | 414.18 | 0.00 | 0.00 | 0.00 |
| 8,100.00 | 90.00 | 0.54 | 7,215.00 | 443.31 | -574.71 | 513.23 | 0.00 | 0.00 | 0.00 |
| 8,200.00 | 90.00 | 0.54 | 7,215.00 | 543.30 | -573.77 | 612.28 | 0.00 | 0.00 | 0.00 |
| 8,300.00 | 90.00 | 0.54 | 7,215.00 | 643.30 | -572.83 | 711.34 | 0.00 | 0.00 | 0.00 |
| 8,400.00 | 90.00 | 0.54 | 7,215.00 | 743.29 | -571.89 | 810.39 | 0.00 | 0.00 | 0.00 |
| 8,500.00 | 90.00 | 0.54 | 7,215.00 | 843.29 | -570.95 | 909.44 | 0.00 | 0.00 | 0.00 |
| 8,600.00 | 90.00 | 0.54 | 7,215.00 | 943.28 | -570.01 | 1,008.50 | 0.00 | 0.00 | 0.00 |
| 8,700.00 | 90.00 | 0.54 | 7,215.00 | 1,043.28 | -569.07 | 1,107.55 | 0.00 | 0.00 | 0.00 |
| 8,800.00 | 90.00 | 0.54 | 7,215.00 | 1,143.28 | -568.14 | 1,206.60 | 0.00 | 0.00 | 0.00 |
| 8,900.00 | 90.00 | 0.54 | 7,215.00 | 1,243.27 | -567.20 | 1,305.65 | 0.00 | 0.00 | 0.00 |
| 9,000.00 | 90.00 | 0.54 | 7,215.00 | 1,343.27 | -566.26 | 1,404.71 | 0.00 | 0.00 | 0.00 |
| 9,100.00 | 90.00 | 0.54 | 7,215.00 | 1,443.26 | -565.32 | 1,503.76 | 0.00 | 0.00 | 0.00 |
| 9,200.00 | 90.00 | 0.54 | 7,215.00 | 1,543.26 | -564.38 | 1,602.81 | 0.00 | 0.00 | 0.00 |
| 9,300.00 | 90.00 | 0.54 | 7,215.00 | 1,643.25 | -563.44 | 1,701.86 | 0.00 | 0.00 | 0.00 |
| 9,400.00 | 90.00 | 0.54 | 7,215.00 | 1,743.25 | -562.50 | 1,800.92 | 0.00 | 0.00 | 0.00 |
| 9,500.00 | 90.00 | 0.54 | 7,215.00 | 1,843.24 | -561.57 | 1,899.97 | 0.00 | 0.00 | 0.00 |
| 9,600.00 | 90.00 | 0.54 | 7,215.00 | 1,943.24 | -560.63 | 1,999.02 | 0.00 | 0.00 | 0.00 |
| 9,700.00 | 90.00 | 0.54 | 7,215.00 | 2,043.24 | -559.69 | 2,098.07 | 0.00 | 0.00 | 0.00 |
| 9,800.00 | 90.00 | 0.54 | 7,215.00 | 2,143.23 | -558.75 | 2,197.13 | 0.00 | 0.00 | 0.00 |
| 9,900.00 | 90.00 | 0.54 | 7,215.00 | 2,243.23 | -557.81 | 2,296.18 | 0.00 | 0.00 | 0.00 |
| 10,000.00 | 90.00 | 0.54 | 7,215.00 | 2,343.22 | -556.87 | 2,395.23 | 0.00 | 0.00 | 0.00 |
| 10,100.00 | 90.00 | 0.54 | 7,215.00 | 2,443.22 | -555.94 | 2,494.29 | 0.00 | 0.00 | 0.00 |
| 10,200.00 | 90.00 | 0.54 | 7,215.00 | 2,543.21 | -555.00 | 2,593.34 | 0.00 | 0.00 | 0.00 |
| 10,300.00 | 90.00 | 0.54 | 7,215.00 | 2,643.21 | -554.06 | 2,692.39 | 0.00 | 0.00 | 0.00 |
| 10,400.00 | 90.00 | 0.54 | 7,215.00 | 2,743.20 | -553.12 | 2,791.44 | 0.00 | 0.00 | 0.00 |
| 10,500.00 | 90.00 | 0.54 | 7,215.00 | 2,843.20 | -552.18 | 2,890.50 | 0.00 | 0.00 | 0.00 |
| 10,600.00 | 90.00 | 0.54 | 7,215.00 | 2,943.20 | -551.24 | 2,989.55 | 0.00 | 0.00 | 0.00 |
| 10,700.00 | 90.00 | 0.54 | 7,215.00 | 3,043.19 | -550.30 | 3,088.60 | 0.00 | 0.00 | 0.00 |
| 10,800.00 | 90.00 | 0.54 | 7,215.00 | 3,143.19 | -549.37 | 3,187.65 | 0.00 | 0.00 | 0.00 |
| 10,900.00 | 90.00 | 0.54 | 7,215.00 | 3,243.18 | -548.43 | 3,286.71 | 0.00 | 0.00 | 0.00 |
| 11,000.00 | 90.00 | 0.54 | 7,215.00 | 3,343.18 | -547.49 | 3,385.76 | 0.00 | 0.00 | 0.00 |
| 11,100.00 | 90.00 | 0.54 | 7,215.00 | 3,443.17 | -546.55 | 3,484.81 | 0.00 | 0.00 | 0.00 |
| 11,200.00 | 90.00 | 0.54 | 7,215.00 | 3,543.17 | -545.61 | 3,583.86 | 0.00 | 0.00 | 0.00 |
| 11,300.00 | 90.00 | 0.54 | 7,215.00 | 3,643.17 | -544.67 | 3,682.92 | 0.00 | 0.00 | 0.00 |
| 11,400.00 | 90.00 | 0.54 | 7,215.00 | 3,743.16 | -543.73 | 3,781.97 | 0.00 | 0.00 | 0.00 |
| 11,500.00 | 90.00 | 0.54 | 7,215.00 | 3,843.16 | -542.80 | 3,881.02 | 0.00 | 0.00 | 0.00 |
| 11,600.00 | 90.00 | 0.54 | 7,215.00 | 3,943.15 | -541.86 | 3,980.07 | 0.00 | 0.00 | 0.00 |
| 11,700.00 | 90.00 | 0.54 | 7,215.00 | 4,043.15 | -540.92 | 4,079.13 | 0.00 | 0.00 | 0.00 |
| 11,800.00 | 90.00 | 0.54 | 7,215.00 | 4,143.14 | -539.98 | 4,178.18 | 0.00 | 0.00 | 0.00 |
| 11,837.38 | 90.00 | 0.54 | 7,215.00 | 4,180.52 | -539.63 | 4,215.21 | 0.00 | 0.00 | 0.00 |
| TD at 11837.38 - FARLEY 28N-23HZ PBHL | | | | | | | | | |

Anadarko Petroleum Corp

Planning Report

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|------------------|----------------------------|-------------------------------------|------------------------------|
| Database: | PLANNING | Local Co-ordinate Reference: | Well FARLEY 28N-23HZ |
| Company: | US ROCKIES REGION PLANNING | TVD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Project: | COLORADO-NAD83-UTMFT13N | MD Reference: | 17' RKB+4978' GL @ 4995.00ft |
| Site: | WELD_FARLEY 15-23HZ PAD | North Reference: | True |
| Well: | FARLEY 28N-23HZ | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | Wellbore #1 | | |
| Design: | PERMIT | | |

| 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 | | | | | | | | | |
| FARLEY 28N-23HZ PBI | 0.00 | 0.00 | 7,215.00 | 4,180.52 | -539.63 | 14,605,703.91 | 1,712,000.54 | 40.216580 | -104.743578 |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

| Casing Points | | | | | |
|----------------|----------------|--------|-----------------|---------------|--|
| Measured Depth | Vertical Depth | Name | Casing Diameter | Hole Diameter | |
| (ft) | (ft) | | (") | (") | |
| 749.00 | 749.00 | 9 5/8" | 9-5/8 | 13-1/2 | |
| 7,682.61 | 7,215.00 | 7" | 7 | 8-3/4 | |

| Formations | | | | | |
|----------------|----------------|----------------|-----------|-----|---------------|
| Measured Depth | Vertical Depth | Name | Lithology | Dip | Dip Direction |
| (ft) | (ft) | | | (°) | (°) |
| 699.00 | 699.00 | Fox Hills Base | | | |
| 4,221.57 | 4,081.00 | Parkman | | | |
| 4,645.57 | 4,505.00 | Sussex | | | |
| 7,309.92 | 7,098.00 | Sharon Springs | | | |
| 7,431.86 | 7,161.00 | Niobrara A | | | |
| 7,519.72 | 7,192.00 | Niobrara B | | | |

| Plan Annotations | | | | | |
|------------------|----------------|-------------------|---------|----------------------------------|--|
| Measured Depth | Vertical Depth | Local Coordinates | | Comment | |
| (ft) | (ft) | +N/-S | +E/-W | | |
| | | (ft) | (ft) | | |
| 1,000.00 | 1,000.00 | 0.00 | 0.00 | Start Build 2.00 | |
| 2,337.00 | 2,288.99 | -209.44 | -223.60 | Start 416.56 hold at 2337.00 MD | |
| 2,753.57 | 2,661.01 | -337.56 | -360.40 | Start Drop -2.00 | |
| 4,090.57 | 3,950.00 | -547.00 | -584.00 | Start 2692.04 hold at 4090.57 MD | |
| 6,782.61 | 6,642.04 | -547.00 | -584.00 | Start Build 10.00 | |
| 7,682.61 | 7,215.00 | 25.93 | -578.62 | Start 4154.77 hold at 7682.61 MD | |
| 11,837.38 | 7,215.00 | 4,180.52 | -539.63 | TD at 11837.38 | |