



ANADARKO PETROLEUM CORP.

ANADARKO COLORADO NORTHERN ZONE NAD 83

WELD_Denver

DENVER 23-18

DENVER 23-18

Plan: DENVER 23-18 (wp02)

Standard Planning Report

06 October, 2010





Project: ANADARKO COLORADO NORTHERN ZONE NAD 83
 Site: WELD Denver
 Well: DENVER 23-18
 Wellbore: DENVER 23-18
 Section:
 SHL:
 Design: DENVER 23-18 (wp02)
 Latitude: 40° 2' 49.823 N
 Longitude: 104° 48' 48.514 W
 GL: 4935.0
 KB: WELL @ 4935.0ft (Original Well Elev)



Weatherford®



Azimuths to True North
 Magnetic North: 8.92°
 Magnetic Field
 Strength: 52995.7nT
 Dip Angle: 66.79°
 Date: 9/29/2010
 Model: BGGM2010

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|--------|-----------|
| 3975.0 | 4197.6 | PK Depth |
| 4637.0 | 4932.5 | SX Depth |
| 7110.0 | 7467.5 | NIO Depth |
| 7470.0 | 7827.5 | CD Depth |
| 7562.0 | 7919.5 | GH Depth |
| 7920.0 | 8277.5 | J Depth |

CASING DETAILS

| TVD | MD | Name | Size |
|-------|-------|--------|-------|
| 960.0 | 960.0 | 9 5/8" | 9-5/8 |

SECTION DETAILS

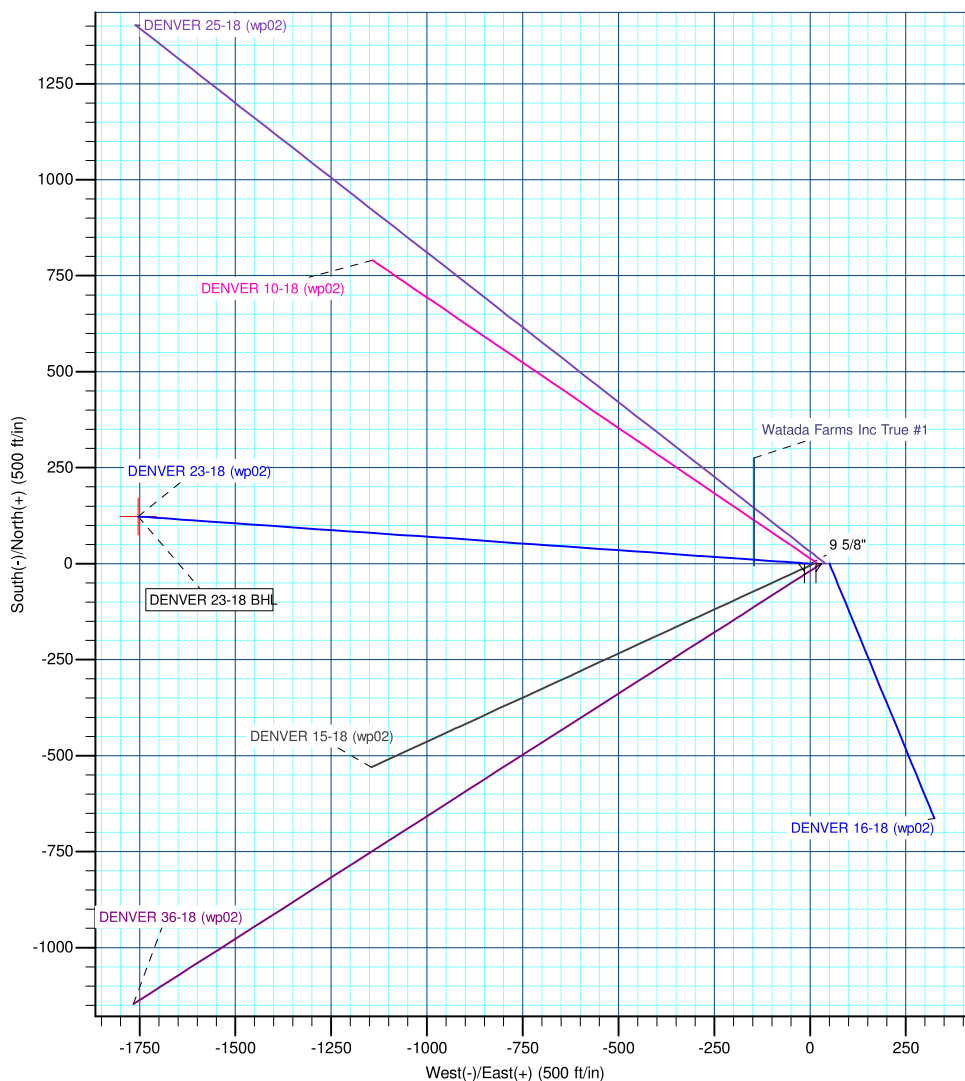
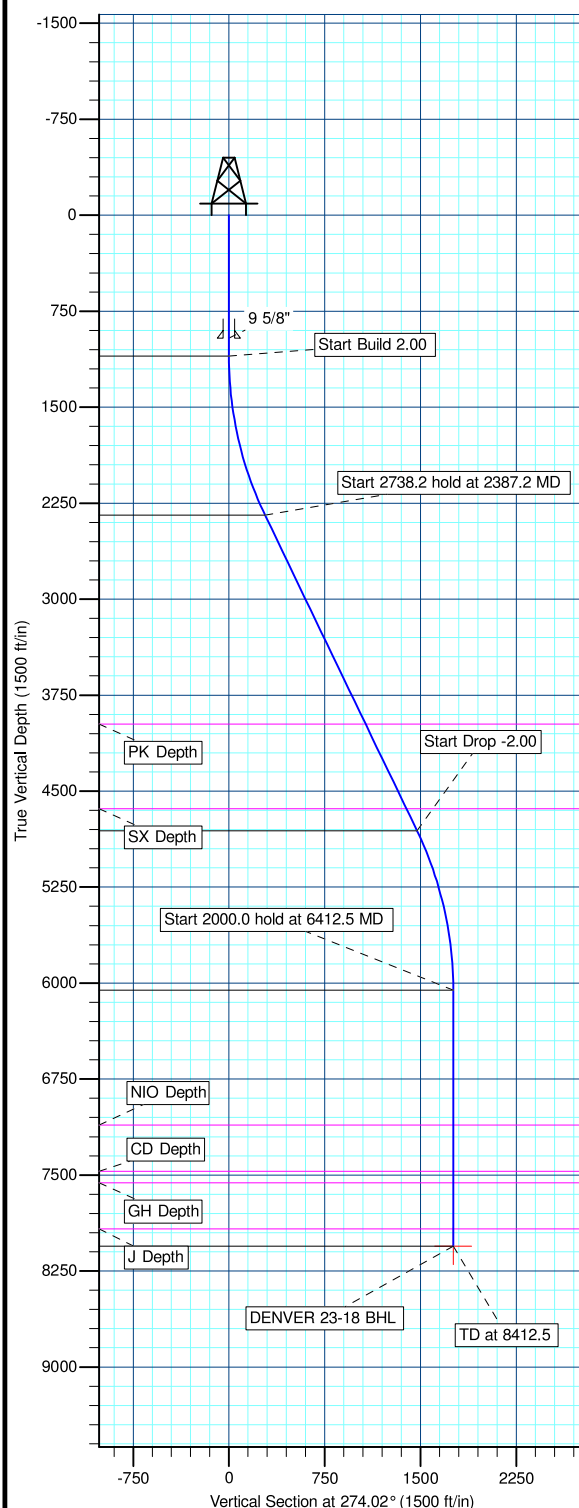
| MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Annotation |
|--------|-------|--------|--------|-------|---------|------|--------|--------|--------------------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 1100.0 | 0.00 | 0.00 | 1100.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | Start Build 2.00 |
| 2387.2 | 25.74 | 274.02 | 2344.3 | 19.9 | -283.6 | 2.00 | 274.02 | 284.3 | Start 2738.2 hold at 2387.2 MD |
| 5125.3 | 25.74 | 274.02 | 4810.7 | 103.3 | -1470.0 | 0.00 | 0.00 | 1473.6 | Start Drop -2.00 |
| 6412.5 | 0.00 | 0.00 | 6055.0 | 123.2 | -1753.7 | 2.00 | 180.00 | 1758.0 | Start 2000.0 hold at 6412.5 MD |
| 8412.5 | 0.00 | 0.00 | 8055.0 | 123.2 | -1753.7 | 0.00 | 0.00 | 1758.0 | TD at 8412.5 |

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape |
|------------------|--------|-------|---------|-----------------|-------------------|-------|
| DENVER 23-18 BHL | 8055.0 | 123.2 | -1753.7 | 40° 2' 51.040 N | 104° 49' 11.064 W | Point |

WELL DETAILS: DENVER 23-18

| +N/-S | +E/-W | Northing | Ground Level: Easting | 4935.0 Latitude | 104° 48' 48.514 W Longitude | Slot |
|-------|-------|------------|--------------------------|--------------------|--------------------------------|------|
| 0.0 | 0.0 | 1260774.75 | 3192197.21 | 40° 2' 49.823 N | | |



Plan: DENVER 23-18 (wp02) (DENVER 23-18/DENVER 23-18)

Created By: Jason Daguitera Date: 16:13, October 06 2010

| | | | |
|-----------|----------------------------------------|------------------------------|--------------------------------------|
| Database: | EDM 2003.21 Single User Db | Local Co-ordinate Reference: | Well DENVER 23-18 |
| Company: | ANADARKO PETROLEUM CORP. | TVD Reference: | WELL @ 4935.0ft (Original Well Elev) |
| Project: | ANADARKO COLORADO NORTHERN ZONE NAD 83 | MD Reference: | WELL @ 4935.0ft (Original Well Elev) |
| Site: | WELD_Denver | North Reference: | True |
| Well: | DENVER 23-18 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DENVER 23-18 | | |
| Design: | DENVER 23-18 (wp02) | | |

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

| Site | | WELD_Denver | | | |
|-----------------------|----------|--------------|-----------------|-------------------|-------------------|
| Site Position: | | Northing: | 1,260,775.65 ft | Latitude: | 40° 2' 49.830 N |
| From: | Lat/Long | Easting: | 3,192,216.80 ft | Longitude: | 104° 48' 48.262 W |
| Position Uncertainty: | 0.0 ft | Slot Radius: | " | Grid Convergence: | 0.44 ° |

| Well | DENVER 23-18 | | | | | |
|----------------------|--------------|----------|---------------------|-----------------|---------------|-------------------|
| Well Position | +N/-S | -0.7 ft | Northing: | 1,260,774.75 ft | Latitude: | 40° 2' 49.823 N |
| | +E/-W | -19.6 ft | Easting: | 3,192,197.21 ft | Longitude: | 104° 48' 48.514 W |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft | Ground Level: | 4,935.0 ft |

| | | | | | |
|-----------|--------------|-------------|-----------------|---------------|---------------------|
| Wellbore | DENVER 23-18 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | BGGM2010 | 9/29/2010 | 8.92 | 66.79 | 52,996 |

| | | | | |
|-------------------|-----------------------|------------|---------------|---------------|
| Design | DENVER 23-18 (wp02) | | | |
| Audit Notes: | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.0 |
| Vertical Section: | Depth From (TVD) (ft) | +N/-S (ft) | +E/-W (ft) | Direction (°) |
| | 0.0 | 0.0 | 0.0 | 274.02 |

| Plan Sections | | | | | | | | | | |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|----------------------|---------------------|---------|-----------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2,387.2 | 25.74 | 274.02 | 2,344.3 | 19.9 | -283.6 | 2.00 | 2.00 | 0.00 | 274.02 | |
| 5,125.3 | 25.74 | 274.02 | 4,810.7 | 103.3 | -1,470.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,412.5 | 0.00 | 0.00 | 6,055.0 | 123.2 | -1,753.7 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 8,412.5 | 0.00 | 0.00 | 8,055.0 | 123.2 | -1,753.7 | 0.00 | 0.00 | 0.00 | 0.00 | DENVER 23-18 BH |

| | | | |
|-----------|-------------------------------------------|------------------------------|--------------------------------------|
| Database: | EDM 2003.21 Single User Db | Local Co-ordinate Reference: | Well DENVER 23-18 |
| Company: | ANADARKO PETROLEUM CORP. | TVD Reference: | WELL @ 4935.0ft (Original Well Elev) |
| Project: | ANADARKO COLORADO NORTHERN ZONE NAD 83 | MD Reference: | WELL @ 4935.0ft (Original Well Elev) |
| Site: | WELD_Denver | North Reference: | True |
| Well: | DENVER 23-18 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DENVER 23-18 | | |
| Design: | DENVER 23-18 (wp02) | | |

Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|--------------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 0.00 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 200.0 | 0.00 | 0.00 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 0.00 | 0.00 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 500.0 | 0.00 | 0.00 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 600.0 | 0.00 | 0.00 | 600.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 700.0 | 0.00 | 0.00 | 700.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 800.0 | 0.00 | 0.00 | 800.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 900.0 | 0.00 | 0.00 | 900.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 960.0 | 0.00 | 0.00 | 960.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,000.0 | 0.00 | 0.00 | 1,000.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Start Build 2.00 | | | | | | | | | |
| 1,100.0 | 0.00 | 0.00 | 1,100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 1,200.0 | 2.00 | 274.02 | 1,200.0 | 0.1 | -1.7 | 1.7 | 2.00 | 2.00 | 0.00 |
| 1,300.0 | 4.00 | 274.02 | 1,299.8 | 0.5 | -7.0 | 7.0 | 2.00 | 2.00 | 0.00 |
| 1,400.0 | 6.00 | 274.02 | 1,399.5 | 1.1 | -15.7 | 15.7 | 2.00 | 2.00 | 0.00 |
| 1,500.0 | 8.00 | 274.02 | 1,498.7 | 2.0 | -27.8 | 27.9 | 2.00 | 2.00 | 0.00 |
| 1,600.0 | 10.00 | 274.02 | 1,597.5 | 3.1 | -43.4 | 43.5 | 2.00 | 2.00 | 0.00 |
| 1,700.0 | 12.00 | 274.02 | 1,695.6 | 4.4 | -62.4 | 62.6 | 2.00 | 2.00 | 0.00 |
| 1,800.0 | 14.00 | 274.02 | 1,793.1 | 6.0 | -84.9 | 85.1 | 2.00 | 2.00 | 0.00 |
| 1,900.0 | 16.00 | 274.02 | 1,889.6 | 7.8 | -110.7 | 111.0 | 2.00 | 2.00 | 0.00 |
| 2,000.0 | 18.00 | 274.02 | 1,985.3 | 9.8 | -139.9 | 140.2 | 2.00 | 2.00 | 0.00 |
| 2,100.0 | 20.00 | 274.02 | 2,079.8 | 12.1 | -172.3 | 172.8 | 2.00 | 2.00 | 0.00 |
| 2,200.0 | 22.00 | 274.02 | 2,173.2 | 14.6 | -208.1 | 208.6 | 2.00 | 2.00 | 0.00 |
| 2,300.0 | 24.00 | 274.02 | 2,265.2 | 17.4 | -247.1 | 247.7 | 2.00 | 2.00 | 0.00 |
| Start 2738.2 hold at 2387.2 MD | | | | | | | | | |
| 2,387.2 | 25.74 | 274.02 | 2,344.3 | 19.9 | -283.6 | 284.3 | 2.00 | 2.00 | 0.00 |
| 2,400.0 | 25.74 | 274.02 | 2,355.9 | 20.3 | -289.2 | 289.9 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 25.74 | 274.02 | 2,445.9 | 23.4 | -332.5 | 333.3 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 25.74 | 274.02 | 2,536.0 | 26.4 | -375.9 | 376.8 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 25.74 | 274.02 | 2,626.1 | 29.4 | -419.2 | 420.2 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 25.74 | 274.02 | 2,716.2 | 32.5 | -462.5 | 463.6 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 25.74 | 274.02 | 2,806.2 | 35.5 | -505.8 | 507.1 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 25.74 | 274.02 | 2,896.3 | 38.6 | -549.2 | 550.5 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 25.74 | 274.02 | 2,986.4 | 41.6 | -592.5 | 593.9 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 25.74 | 274.02 | 3,076.5 | 44.7 | -635.8 | 637.4 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 25.74 | 274.02 | 3,166.5 | 47.7 | -679.1 | 680.8 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 25.74 | 274.02 | 3,256.6 | 50.8 | -722.5 | 724.3 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 25.74 | 274.02 | 3,346.7 | 53.8 | -765.8 | 767.7 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 25.74 | 274.02 | 3,436.7 | 56.8 | -809.1 | 811.1 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 25.74 | 274.02 | 3,526.8 | 59.9 | -852.5 | 854.6 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 25.74 | 274.02 | 3,616.9 | 62.9 | -895.8 | 898.0 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 25.74 | 274.02 | 3,707.0 | 66.0 | -939.1 | 941.4 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 25.74 | 274.02 | 3,797.0 | 69.0 | -982.4 | 984.9 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 25.74 | 274.02 | 3,887.1 | 72.1 | -1,025.8 | 1,028.3 | 0.00 | 0.00 | 0.00 |
| PK Depth | | | | | | | | | |
| 4,197.6 | 25.74 | 274.02 | 3,975.0 | 75.0 | -1,068.0 | 1,070.7 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 25.74 | 274.02 | 3,977.2 | 75.1 | -1,069.1 | 1,071.7 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 25.74 | 274.02 | 4,067.3 | 78.2 | -1,112.4 | 1,115.2 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 25.74 | 274.02 | 4,157.3 | 81.2 | -1,155.7 | 1,158.6 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 25.74 | 274.02 | 4,247.4 | 84.2 | -1,199.1 | 1,202.0 | 0.00 | 0.00 | 0.00 |

| | | | |
|-----------|-------------------------------------------|------------------------------|--------------------------------------|
| Database: | EDM 2003.21 Single User Db | Local Co-ordinate Reference: | Well DENVER 23-18 |
| Company: | ANADARKO PETROLEUM CORP. | TVD Reference: | WELL @ 4935.0ft (Original Well Elev) |
| Project: | ANADARKO COLORADO NORTHERN ZONE NAD 83 | MD Reference: | WELL @ 4935.0ft (Original Well Elev) |
| Site: | WELD_Denver | North Reference: | True |
| Well: | DENVER 23-18 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DENVER 23-18 | | |
| Design: | DENVER 23-18 (wp02) | | |

Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|--------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 4,600.0 | 25.74 | 274.02 | 4,337.5 | 87.3 | -1,242.4 | 1,245.5 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 25.74 | 274.02 | 4,427.6 | 90.3 | -1,285.7 | 1,288.9 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 25.74 | 274.02 | 4,517.6 | 93.4 | -1,329.1 | 1,332.3 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 25.74 | 274.02 | 4,607.7 | 96.4 | -1,372.4 | 1,375.8 | 0.00 | 0.00 | 0.00 |
| SX Depth | | | | | | | | | |
| 4,932.5 | 25.74 | 274.02 | 4,637.0 | 97.4 | -1,386.5 | 1,389.9 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 25.74 | 274.02 | 4,697.8 | 99.5 | -1,415.7 | 1,419.2 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 25.74 | 274.02 | 4,787.9 | 102.5 | -1,459.0 | 1,462.6 | 0.00 | 0.00 | 0.00 |
| Start Drop -2.00 | | | | | | | | | |
| 5,125.3 | 25.74 | 274.02 | 4,810.7 | 103.3 | -1,470.0 | 1,473.6 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 24.25 | 274.02 | 4,878.4 | 105.5 | -1,501.5 | 1,505.2 | 2.00 | -2.00 | 0.00 |
| 5,300.0 | 22.25 | 274.02 | 4,970.2 | 108.3 | -1,540.9 | 1,544.7 | 2.00 | -2.00 | 0.00 |
| 5,400.0 | 20.25 | 274.02 | 5,063.4 | 110.8 | -1,577.0 | 1,580.9 | 2.00 | -2.00 | 0.00 |
| 5,500.0 | 18.25 | 274.02 | 5,157.8 | 113.1 | -1,609.9 | 1,613.9 | 2.00 | -2.00 | 0.00 |
| 5,600.0 | 16.25 | 274.02 | 5,253.3 | 115.2 | -1,639.5 | 1,643.5 | 2.00 | -2.00 | 0.00 |
| 5,700.0 | 14.25 | 274.02 | 5,349.8 | 117.0 | -1,665.7 | 1,669.8 | 2.00 | -2.00 | 0.00 |
| 5,800.0 | 12.25 | 274.02 | 5,447.1 | 118.6 | -1,688.6 | 1,692.8 | 2.00 | -2.00 | 0.00 |
| 5,900.0 | 10.25 | 274.02 | 5,545.2 | 120.0 | -1,708.1 | 1,712.3 | 2.00 | -2.00 | 0.00 |
| 6,000.0 | 8.25 | 274.02 | 5,643.9 | 121.1 | -1,724.1 | 1,728.3 | 2.00 | -2.00 | 0.00 |
| 6,100.0 | 6.25 | 274.02 | 5,743.1 | 122.0 | -1,736.7 | 1,741.0 | 2.00 | -2.00 | 0.00 |
| 6,200.0 | 4.25 | 274.02 | 5,842.7 | 122.6 | -1,745.8 | 1,750.1 | 2.00 | -2.00 | 0.00 |
| 6,300.0 | 2.25 | 274.02 | 5,942.5 | 123.0 | -1,751.5 | 1,755.8 | 2.00 | -2.00 | 0.00 |
| 6,400.0 | 0.25 | 274.02 | 6,042.5 | 123.2 | -1,753.6 | 1,758.0 | 2.00 | -2.00 | 0.00 |
| Start 2000.0 hold at 6412.5 MD | | | | | | | | | |
| 6,412.5 | 0.00 | 0.00 | 6,055.0 | 123.2 | -1,753.7 | 1,758.0 | 2.00 | -2.00 | 0.00 |
| 6,500.0 | 0.00 | 0.00 | 6,142.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 6,600.0 | 0.00 | 0.00 | 6,242.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 6,700.0 | 0.00 | 0.00 | 6,342.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 6,800.0 | 0.00 | 0.00 | 6,442.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 0.00 | 0.00 | 6,542.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,000.0 | 0.00 | 0.00 | 6,642.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 0.00 | 0.00 | 6,742.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 0.00 | 0.00 | 6,842.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 0.00 | 0.00 | 6,942.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 0.00 | 0.00 | 7,042.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| NIO Depth | | | | | | | | | |
| 7,467.5 | 0.00 | 0.00 | 7,110.0 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 0.00 | 0.00 | 7,142.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 0.00 | 0.00 | 7,242.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 0.00 | 0.00 | 7,342.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 0.00 | 0.00 | 7,442.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| CD Depth | | | | | | | | | |
| 7,827.5 | 0.00 | 0.00 | 7,470.0 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 0.00 | 0.00 | 7,542.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| GH Depth | | | | | | | | | |
| 7,919.5 | 0.00 | 0.00 | 7,562.0 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 0.00 | 0.00 | 7,642.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 0.00 | 0.00 | 7,742.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 0.00 | 0.00 | 7,842.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| J Depth | | | | | | | | | |
| 8,277.5 | 0.00 | 0.00 | 7,920.0 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 0.00 | 0.00 | 7,942.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |

| | | | |
|-----------|----------------------------------------|------------------------------|--------------------------------------|
| Database: | EDM 2003.21 Single User Db | Local Co-ordinate Reference: | Well DENVER 23-18 |
| Company: | ANADARKO PETROLEUM CORP. | TVD Reference: | WELL @ 4935.0ft (Original Well Elev) |
| Project: | ANADARKO COLORADO NORTHERN ZONE NAD 83 | MD Reference: | WELL @ 4935.0ft (Original Well Elev) |
| Site: | WELD_Denver | North Reference: | True |
| Well: | DENVER 23-18 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | DENVER 23-18 | | |
| Design: | DENVER 23-18 (wp02) | | |

Planned Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 8,400.0 | 0.00 | 0.00 | 8,042.5 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |
| TD at 8412.5 | | | | | | | | | |
| 8,412.5 | 0.00 | 0.00 | 8,055.0 | 123.2 | -1,753.7 | 1,758.0 | 0.00 | 0.00 | 0.00 |

Design Targets

| Target Name | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
|---------------------------|---------------|--------------|----------|------------|------------|---------------|--------------|-----------------|-------------------|
| - hit/miss target | | | | | | | | | |
| - Shape | | | | | | | | | |
| DENVER 23-18 BHL | 0.00 | 0.00 | 8,055.0 | 123.2 | -1,753.7 | 1,260,884.37 | 3,190,442.64 | 40° 2' 51.040 N | 104° 49' 11.064 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|--------|---------------------|-------------------|
| 960.0 | 960.0 | 9 5/8" | 9-5/8 | 12-1/4 |

Formations

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---------------------|---------------------|-----------|-----------|---------|-------------------|
| 7,827.5 | 7,470.0 | CD Depth | | | |
| 7,919.5 | 7,562.0 | GH Depth | | | |
| 7,467.5 | 7,110.0 | NIO Depth | | | |
| 4,932.5 | 4,637.0 | SX Depth | | | |
| 8,277.5 | 7,920.0 | J Depth | | | |
| 4,197.6 | 3,975.0 | PK Depth | | | |

Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------------|---------------------------|-------------------|---------------|--------------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 1,100.0 | 1,100.0 | 0.0 | 0.0 | Start Build 2.00 |
| 2,387.2 | 2,344.3 | 19.9 | -283.6 | Start 2738.2 hold at 2387.2 MD |
| 5,125.3 | 4,810.7 | 103.3 | -1,470.0 | Start Drop -2.00 |
| 6,412.5 | 6,055.0 | 123.2 | -1,753.7 | Start 2000.0 hold at 6412.5 MD |
| 8,412.5 | 8,055.0 | 123.2 | -1,753.7 | TD at 8412.5 |