



ANADARKO PETROLEUM CORP.

ANADARKO COLORADO NORTHERN ZONE NAD 83

WELD_Reigle

REIGLE 31-4

REIGLE 31-4

Plan: REIGLE 31-4 (wp01)

Standard Planning Report

30 September, 2010





Project: ANADARKO COLORADO NORTHERN ZONE NAD 83
 Site: WELD Reigle
 Well: REIGLE 31-4
 Wellbore: REIGLE 31-4
 Section:
 SHL:
 Design: REIGLE 31-4 (wp01)
 Latitude: 40° 10' 6.207 N
 Longitude: 104° 40' 8.944 W
 GL: 4861.0
 KB: WELL @ 4861.0ft (Original Well Elev)



Weatherford



Azimuths to True North
 Magnetic North: 8.85°
 Magnetic Field
 Strength: 53075.9snT
 Dip Angle: 66.92°
 Date: 9/30/2010
 Model: BGGM2010

FORMATION TOP DETAILS

| TVDPath | MDPath | Formation |
|---------|--------|-----------|
| 4161.0 | 4588.1 | PK |
| 4513.0 | 4988.6 | SX |
| 6907.0 | 7541.9 | NIO |
| 7192.0 | 7826.9 | CD |
| 7279.0 | 7913.9 | GH |
| 7651.0 | 8285.9 | J |

CASING DETAILS

| TVD | MD | Name | Size |
|-------|-------|--------|-------|
| 700.0 | 702.1 | 9 5/8" | 9-5/8 |

SECTION DETAILS

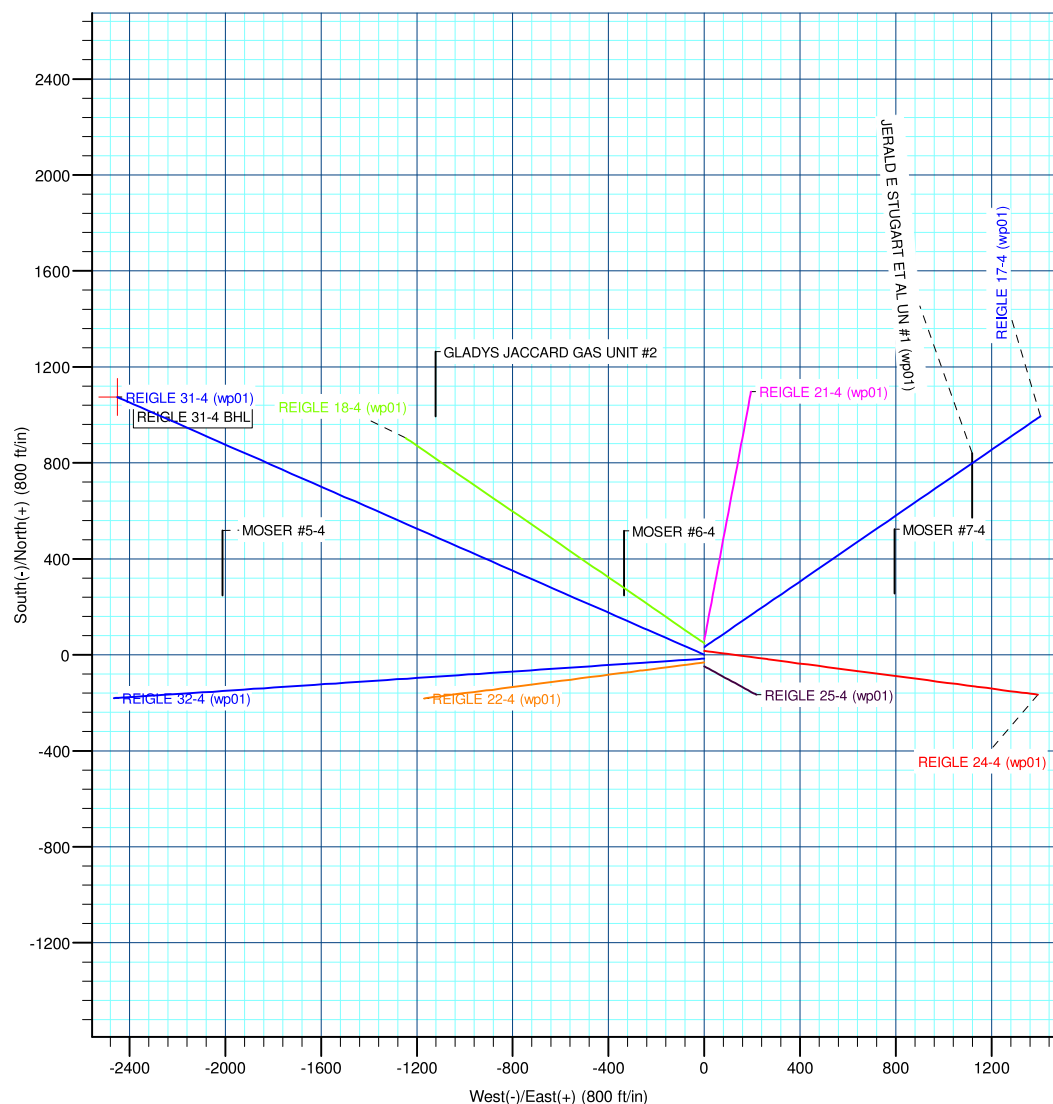
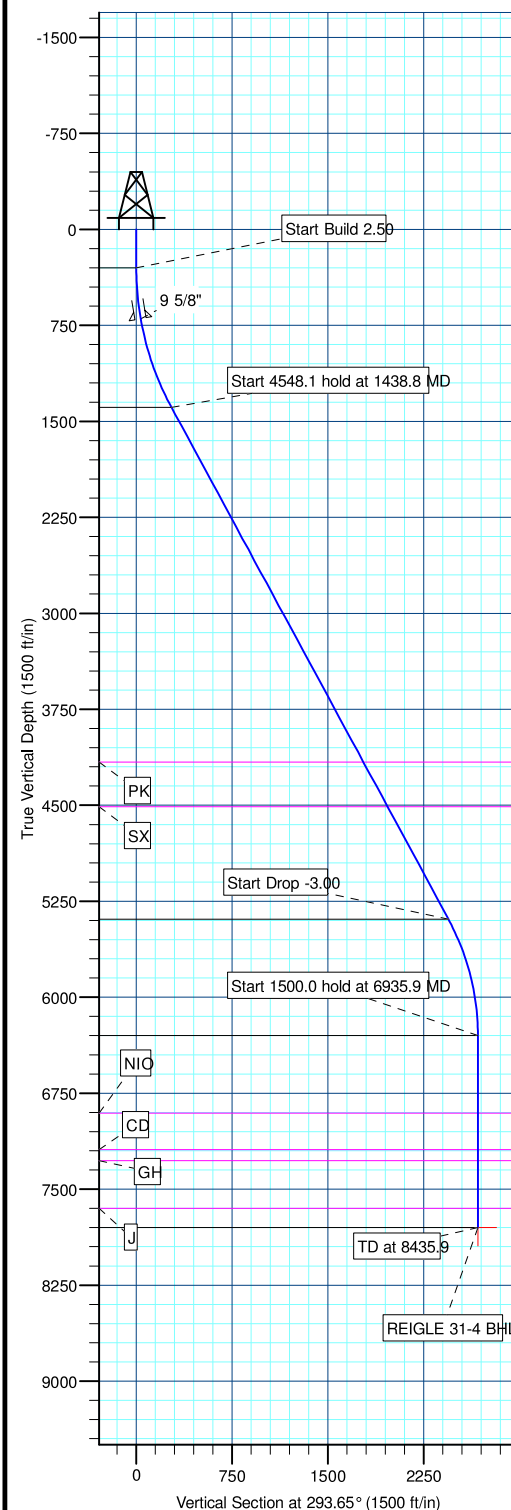
| MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Annotation |
|--------|-------|--------|--------|--------|---------|------|--------|--------|--------------------------------|
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | Start Build 2.50 |
| 1438.8 | 28.47 | 293.65 | 1392.5 | 111.2 | -253.9 | 2.50 | 293.65 | 277.2 | Start 4548.1 hold at 1438.8 MD |
| 5986.9 | 28.47 | 293.65 | 5390.6 | 981.0 | -2239.8 | 0.00 | 0.00 | 2445.2 | Start Drop -3.00 |
| 6935.9 | 0.00 | 0.00 | 6301.0 | 1073.7 | -2451.3 | 3.00 | 180.00 | 2676.2 | Start 1500.0 hold at 6935.9 MD |
| 8435.9 | 0.00 | 0.00 | 7801.0 | 1073.7 | -2451.3 | 0.00 | 0.00 | 2676.2 | TD at 8435.9 |

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

| Name | TVD | +N/-S | +E/-W | Latitude | Longitude | Shape |
|-----------------|--------|--------|---------|------------------|-------------------|-------|
| REIGLE 31-4 BHL | 7801.0 | 1073.7 | -2451.3 | 40° 10' 16.817 N | 104° 40' 40.523 W | Point |

WELL DETAILS: REIGLE 31-4

| +N/-S | +E/-W | Northing | Ground Level: Easting | 4861.0 Latitude | Longitude | Slot |
|-------|-------|------------|--------------------------|--------------------|------------------|------|
| 0.0 | 0.0 | 1305275.61 | 3232187.19 | 40° 10' 6.207 N | 104° 40' 8.944 W | |



Plan: REIGLE 31-4 (wp01) (REIGLE 31-4/REIGLE 31-4)

Created By: Jason Daguitera Date: 17:43, September 30 2010

| | | | |
|------------------|--|-------------------------------------|--------------------------------------|
| Database: | EDM 2003.21 Single User Db | Local Co-ordinate Reference: | Well REIGLE 31-4 |
| Company: | ANADARKO PETROLEUM CORP. | TVD Reference: | WELL @ 4861.0ft (Original Well Elev) |
| Project: | ANADARKO COLORADO NORTHERN ZONE NAD 83 | MD Reference: | WELL @ 4861.0ft (Original Well Elev) |
| Site: | WELD_Reigle | North Reference: | True |
| Well: | REIGLE 31-4 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | REIGLE 31-4 | | |
| Design: | REIGLE 31-4 (wp01) | | |

| | | | |
|--------------------|--|----------------------|----------------|
| 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_Reigle | | | |
|-----------------------|----------|--------------|----------------|-------------------|------------------|
| Site Position: | | Northing: | 1,305,307.68ft | Latitude: | 40° 10' 6.524 N |
| From: | Lat/Long | Easting: | 3,232,187.17ft | Longitude: | 104° 40' 8.940 W |
| Position Uncertainty: | 0.0 ft | Slot Radius: | " | Grid Convergence: | 0.54 ° |

| Well | REIGLE 31-4 | | | | | |
|----------------------|-------------|---------|---------------------|-----------------|---------------|------------------|
| Well Position | +N/-S | -32.1ft | Northing: | 1,305,275.61ft | Latitude: | 40° 10' 6.207 N |
| | +E/-W | -0.3 ft | Easting: | 3,232,187.19 ft | Longitude: | 104° 40' 8.944 W |
| Position Uncertainty | | 0.0 ft | Wellhead Elevation: | ft | Ground Level: | 4,861.0ft |

| | | | | | |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| Wellbore | REIGLE 31-4 | | | | |
| Magnetics | Model Name | Sample Date | Declination (°) | Dip Angle (°) | Field Strength (nT) |
| | BGGM2010 | 9/30/2010 | 8.85 | 66.92 | 53,076 |

| | | | | |
|--------------------------|------------------------------|-------------------|----------------------|----------------------|
| Design | REIGLE 31-4 (wp01) | | | |
| 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 | 293.65 |

| 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 | |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1,438.8 | 28.47 | 293.65 | 1,392.5 | 111.2 | -253.9 | 2.50 | 2.50 | 0.00 | 293.65 | |
| 5,986.9 | 28.47 | 293.65 | 5,390.6 | 981.0 | -2,239.8 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,935.9 | 0.00 | 0.00 | 6,301.0 | 1,073.7 | -2,451.3 | 3.00 | -3.00 | 0.00 | 180.00 | |
| 8,435.9 | 0.00 | 0.00 | 7,801.0 | 1,073.7 | -2,451.3 | 0.00 | 0.00 | 0.00 | 0.00 | REIGLE 31-4 BHL |

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 2003.21 Single User Db | Local Co-ordinate Reference: | Well REIGLE 31-4 |
| Company: | ANADARKO PETROLEUM CORP. | TVD Reference: | WELL @ 4861.0ft (Original Well Elev) |
| Project: | ANADARKO COLORADO NORTHERN ZONE NAD 83 | MD Reference: | WELL @ 4861.0ft (Original Well Elev) |
| Site: | WELD_Reigle | North Reference: | True |
| Well: | REIGLE 31-4 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | REIGLE 31-4 | | |
| Design: | REIGLE 31-4 (wp01) | | |

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 |
| Start Build 2.50 | | | | | | | | | |
| 300.0 | 0.00 | 0.00 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 400.0 | 2.50 | 293.65 | 400.0 | 0.9 | -2.0 | 2.2 | 2.50 | 2.50 | 0.00 |
| 500.0 | 5.00 | 293.65 | 499.7 | 3.5 | -8.0 | 8.7 | 2.50 | 2.50 | 0.00 |
| 600.0 | 7.50 | 293.65 | 599.1 | 7.9 | -18.0 | 19.6 | 2.50 | 2.50 | 0.00 |
| 700.0 | 10.00 | 293.65 | 698.0 | 14.0 | -31.9 | 34.8 | 2.50 | 2.50 | 0.00 |
| 9 5/8" | | | | | | | | | |
| 702.1 | 10.05 | 293.65 | 700.0 | 14.1 | -32.2 | 35.2 | 2.50 | 2.50 | 0.00 |
| 800.0 | 12.50 | 293.65 | 796.0 | 21.8 | -49.8 | 54.3 | 2.50 | 2.50 | 0.00 |
| 900.0 | 15.00 | 293.65 | 893.2 | 31.3 | -71.5 | 78.1 | 2.50 | 2.50 | 0.00 |
| 1,000.0 | 17.50 | 293.65 | 989.2 | 42.6 | -97.2 | 106.1 | 2.50 | 2.50 | 0.00 |
| 1,100.0 | 20.00 | 293.65 | 1,083.9 | 55.5 | -126.6 | 138.2 | 2.50 | 2.50 | 0.00 |
| 1,200.0 | 22.50 | 293.65 | 1,177.0 | 70.0 | -159.8 | 174.5 | 2.50 | 2.50 | 0.00 |
| 1,300.0 | 25.00 | 293.65 | 1,268.6 | 86.1 | -196.7 | 214.7 | 2.50 | 2.50 | 0.00 |
| 1,400.0 | 27.50 | 293.65 | 1,358.3 | 103.9 | -237.2 | 259.0 | 2.50 | 2.50 | 0.00 |
| Start 4548.1 hold at 1438.8 MD | | | | | | | | | |
| 1,438.8 | 28.47 | 293.65 | 1,392.5 | 111.2 | -253.9 | 277.2 | 2.50 | 2.50 | 0.00 |
| 1,500.0 | 28.47 | 293.65 | 1,446.3 | 122.9 | -280.6 | 306.3 | 0.00 | 0.00 | 0.00 |
| 1,600.0 | 28.47 | 293.65 | 1,534.2 | 142.0 | -324.3 | 354.0 | 0.00 | 0.00 | 0.00 |
| 1,700.0 | 28.47 | 293.65 | 1,622.1 | 161.1 | -367.9 | 401.7 | 0.00 | 0.00 | 0.00 |
| 1,800.0 | 28.47 | 293.65 | 1,710.0 | 180.3 | -411.6 | 449.3 | 0.00 | 0.00 | 0.00 |
| 1,900.0 | 28.47 | 293.65 | 1,797.9 | 199.4 | -455.3 | 497.0 | 0.00 | 0.00 | 0.00 |
| 2,000.0 | 28.47 | 293.65 | 1,885.8 | 218.5 | -498.9 | 544.7 | 0.00 | 0.00 | 0.00 |
| 2,100.0 | 28.47 | 293.65 | 1,973.8 | 237.6 | -542.6 | 592.3 | 0.00 | 0.00 | 0.00 |
| 2,200.0 | 28.47 | 293.65 | 2,061.7 | 256.8 | -586.3 | 640.0 | 0.00 | 0.00 | 0.00 |
| 2,300.0 | 28.47 | 293.65 | 2,149.6 | 275.9 | -629.9 | 687.7 | 0.00 | 0.00 | 0.00 |
| 2,400.0 | 28.47 | 293.65 | 2,237.5 | 295.0 | -673.6 | 735.4 | 0.00 | 0.00 | 0.00 |
| 2,500.0 | 28.47 | 293.65 | 2,325.4 | 314.1 | -717.2 | 783.0 | 0.00 | 0.00 | 0.00 |
| 2,600.0 | 28.47 | 293.65 | 2,413.3 | 333.3 | -760.9 | 830.7 | 0.00 | 0.00 | 0.00 |
| 2,700.0 | 28.47 | 293.65 | 2,501.2 | 352.4 | -804.6 | 878.4 | 0.00 | 0.00 | 0.00 |
| 2,800.0 | 28.47 | 293.65 | 2,589.1 | 371.5 | -848.2 | 926.0 | 0.00 | 0.00 | 0.00 |
| 2,900.0 | 28.47 | 293.65 | 2,677.0 | 390.6 | -891.9 | 973.7 | 0.00 | 0.00 | 0.00 |
| 3,000.0 | 28.47 | 293.65 | 2,764.9 | 409.8 | -935.6 | 1,021.4 | 0.00 | 0.00 | 0.00 |
| 3,100.0 | 28.47 | 293.65 | 2,852.8 | 428.9 | -979.2 | 1,069.0 | 0.00 | 0.00 | 0.00 |
| 3,200.0 | 28.47 | 293.65 | 2,940.7 | 448.0 | -1,022.9 | 1,116.7 | 0.00 | 0.00 | 0.00 |
| 3,300.0 | 28.47 | 293.65 | 3,028.6 | 467.1 | -1,066.6 | 1,164.4 | 0.00 | 0.00 | 0.00 |
| 3,400.0 | 28.47 | 293.65 | 3,116.5 | 486.3 | -1,110.2 | 1,212.1 | 0.00 | 0.00 | 0.00 |
| 3,500.0 | 28.47 | 293.65 | 3,204.4 | 505.4 | -1,153.9 | 1,259.7 | 0.00 | 0.00 | 0.00 |
| 3,600.0 | 28.47 | 293.65 | 3,292.4 | 524.5 | -1,197.6 | 1,307.4 | 0.00 | 0.00 | 0.00 |
| 3,700.0 | 28.47 | 293.65 | 3,380.3 | 543.6 | -1,241.2 | 1,355.1 | 0.00 | 0.00 | 0.00 |
| 3,800.0 | 28.47 | 293.65 | 3,468.2 | 562.8 | -1,284.9 | 1,402.7 | 0.00 | 0.00 | 0.00 |
| 3,900.0 | 28.47 | 293.65 | 3,556.1 | 581.9 | -1,328.6 | 1,450.4 | 0.00 | 0.00 | 0.00 |
| 4,000.0 | 28.47 | 293.65 | 3,644.0 | 601.0 | -1,372.2 | 1,498.1 | 0.00 | 0.00 | 0.00 |
| 4,100.0 | 28.47 | 293.65 | 3,731.9 | 620.1 | -1,415.9 | 1,545.7 | 0.00 | 0.00 | 0.00 |
| 4,200.0 | 28.47 | 293.65 | 3,819.8 | 639.3 | -1,459.5 | 1,593.4 | 0.00 | 0.00 | 0.00 |
| 4,300.0 | 28.47 | 293.65 | 3,907.7 | 658.4 | -1,503.2 | 1,641.1 | 0.00 | 0.00 | 0.00 |
| 4,400.0 | 28.47 | 293.65 | 3,995.6 | 677.5 | -1,546.9 | 1,688.7 | 0.00 | 0.00 | 0.00 |
| 4,500.0 | 28.47 | 293.65 | 4,083.5 | 696.6 | -1,590.5 | 1,736.4 | 0.00 | 0.00 | 0.00 |
| PK | | | | | | | | | |
| 4,588.1 | 28.47 | 293.65 | 4,161.0 | 713.5 | -1,629.0 | 1,778.4 | 0.00 | 0.00 | 0.00 |

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|------------------|---|-------------------------------------|--------------------------------------|
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| Project: | ANADARKO COLORADO NORTHERN ZONE NAD 83 | MD Reference: | WELL @ 4861.0ft (Original Well Elev) |
| Site: | WELD_Reigle | North Reference: | True |
| Well: | REIGLE 31-4 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | REIGLE 31-4 | | |
| Design: | REIGLE 31-4 (wp01) | | |

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 | 28.47 | 293.65 | 4,171.4 | 715.8 | -1,634.2 | 1,784.1 | 0.00 | 0.00 | 0.00 |
| 4,700.0 | 28.47 | 293.65 | 4,259.3 | 734.9 | -1,677.9 | 1,831.8 | 0.00 | 0.00 | 0.00 |
| 4,800.0 | 28.47 | 293.65 | 4,347.2 | 754.0 | -1,721.5 | 1,879.4 | 0.00 | 0.00 | 0.00 |
| 4,900.0 | 28.47 | 293.65 | 4,435.1 | 773.1 | -1,765.2 | 1,927.1 | 0.00 | 0.00 | 0.00 |
| SX | | | | | | | | | |
| 4,988.6 | 28.47 | 293.65 | 4,513.0 | 790.1 | -1,803.9 | 1,969.3 | 0.00 | 0.00 | 0.00 |
| 5,000.0 | 28.47 | 293.65 | 4,523.1 | 792.3 | -1,808.9 | 1,974.8 | 0.00 | 0.00 | 0.00 |
| 5,100.0 | 28.47 | 293.65 | 4,611.0 | 811.4 | -1,852.5 | 2,022.4 | 0.00 | 0.00 | 0.00 |
| 5,200.0 | 28.47 | 293.65 | 4,698.9 | 830.5 | -1,896.2 | 2,070.1 | 0.00 | 0.00 | 0.00 |
| 5,300.0 | 28.47 | 293.65 | 4,786.8 | 849.6 | -1,939.9 | 2,117.8 | 0.00 | 0.00 | 0.00 |
| 5,400.0 | 28.47 | 293.65 | 4,874.7 | 868.8 | -1,983.5 | 2,165.4 | 0.00 | 0.00 | 0.00 |
| 5,500.0 | 28.47 | 293.65 | 4,962.6 | 887.9 | -2,027.2 | 2,213.1 | 0.00 | 0.00 | 0.00 |
| 5,600.0 | 28.47 | 293.65 | 5,050.5 | 907.0 | -2,070.9 | 2,260.8 | 0.00 | 0.00 | 0.00 |
| 5,700.0 | 28.47 | 293.65 | 5,138.4 | 926.1 | -2,114.5 | 2,308.4 | 0.00 | 0.00 | 0.00 |
| 5,800.0 | 28.47 | 293.65 | 5,226.3 | 945.3 | -2,158.2 | 2,356.1 | 0.00 | 0.00 | 0.00 |
| 5,900.0 | 28.47 | 293.65 | 5,314.2 | 964.4 | -2,201.8 | 2,403.8 | 0.00 | 0.00 | 0.00 |
| Start Drop -3.00 | | | | | | | | | |
| 5,986.9 | 28.47 | 293.65 | 5,390.6 | 981.0 | -2,239.8 | 2,445.2 | 0.00 | 0.00 | 0.00 |
| 6,000.0 | 28.08 | 293.65 | 5,402.1 | 983.5 | -2,245.5 | 2,451.4 | 3.00 | -3.00 | 0.00 |
| 6,100.0 | 25.08 | 293.65 | 5,491.6 | 1,001.5 | -2,286.5 | 2,496.1 | 3.00 | -3.00 | 0.00 |
| 6,200.0 | 22.08 | 293.65 | 5,583.2 | 1,017.5 | -2,323.1 | 2,536.1 | 3.00 | -3.00 | 0.00 |
| 6,300.0 | 19.08 | 293.65 | 5,676.8 | 1,031.6 | -2,355.3 | 2,571.3 | 3.00 | -3.00 | 0.00 |
| 6,400.0 | 16.08 | 293.65 | 5,772.1 | 1,043.7 | -2,382.9 | 2,601.5 | 3.00 | -3.00 | 0.00 |
| 6,500.0 | 13.08 | 293.65 | 5,868.9 | 1,053.8 | -2,406.0 | 2,626.6 | 3.00 | -3.00 | 0.00 |
| 6,600.0 | 10.08 | 293.65 | 5,966.9 | 1,061.9 | -2,424.4 | 2,646.7 | 3.00 | -3.00 | 0.00 |
| 6,700.0 | 7.08 | 293.65 | 6,065.7 | 1,067.8 | -2,438.0 | 2,661.6 | 3.00 | -3.00 | 0.00 |
| 6,800.0 | 4.08 | 293.65 | 6,165.3 | 1,071.7 | -2,446.9 | 2,671.3 | 3.00 | -3.00 | 0.00 |
| 6,900.0 | 1.08 | 293.65 | 6,265.1 | 1,073.5 | -2,451.0 | 2,675.8 | 3.00 | -3.00 | 0.00 |
| Start 1500.0 hold at 6935.9 MD | | | | | | | | | |
| 6,935.9 | 0.00 | 0.00 | 6,301.0 | 1,073.7 | -2,451.3 | 2,676.2 | 3.00 | -3.00 | 0.00 |
| 7,000.0 | 0.00 | 0.00 | 6,365.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 0.00 | 0.00 | 6,465.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 0.00 | 0.00 | 6,565.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 0.00 | 0.00 | 6,665.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 0.00 | 0.00 | 6,765.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 0.00 | 0.00 | 6,865.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| NIO | | | | | | | | | |
| 7,541.9 | 0.00 | 0.00 | 6,907.0 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 0.00 | 0.00 | 6,965.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 0.00 | 0.00 | 7,065.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 0.00 | 0.00 | 7,165.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| CD | | | | | | | | | |
| 7,826.9 | 0.00 | 0.00 | 7,192.0 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 0.00 | 0.00 | 7,265.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| GH | | | | | | | | | |
| 7,913.9 | 0.00 | 0.00 | 7,279.0 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 0.00 | 0.00 | 7,365.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 0.00 | 0.00 | 7,465.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 0.00 | 0.00 | 7,565.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| J | | | | | | | | | |
| 8,285.9 | 0.00 | 0.00 | 7,651.0 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 0.00 | 0.00 | 7,665.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |

| | | | |
|------------------|---|-------------------------------------|--------------------------------------|
| Database: | EDM 2003.21 Single User Db | Local Co-ordinate Reference: | Well REIGLE 31-4 |
| Company: | ANADARKO PETROLEUM CORP. | TVD Reference: | WELL @ 4861.0ft (Original Well Elev) |
| Project: | ANADARKO COLORADO NORTHERN ZONE NAD 83 | MD Reference: | WELL @ 4861.0ft (Original Well Elev) |
| Site: | WELD_Reigle | North Reference: | True |
| Well: | REIGLE 31-4 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | REIGLE 31-4 | | |
| Design: | REIGLE 31-4 (wp01) | | |

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 | 7,765.1 | 1,073.7 | -2,451.3 | 2,676.2 | 0.00 | 0.00 | 0.00 |
| TD at 8435.9 | | | | | | | | | |
| 8,435.9 | 0.00 | 0.00 | 7,801.0 | 1,073.7 | -2,451.3 | 2,676.2 | 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 | | | | | | | | | |
| REIGLE 31-4 BHL | 0.00 | 0.00 | 7,801.0 | 1,073.7 | -2,451.3 | 1,306,326.27 | 3,229,725.91 | 40° 10' 16.817 N | 104° 40' 40.523 W |
| - plan hits target center | | | | | | | | | |
| - Point | | | | | | | | | |

Casing Points

| Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
|---------------------|---------------------|--------|---------------------|-------------------|
| 702.1 | 700.0 | 9 5/8" | 9-5/8 | 12-1/4 |

Formations

| Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
|---------------------|---------------------|------|-----------|---------|-------------------|
| 7,826.9 | 7,192.0 | CD | | | |
| 7,913.9 | 7,279.0 | GH | | | |
| 4,988.6 | 4,513.0 | SX | | 0.00 | |
| 4,588.1 | 4,161.0 | PK | | 0.00 | |
| 7,541.9 | 6,907.0 | NIO | | | |
| 8,285.9 | 7,651.0 | J | | | |

Plan Annotations

| Measured Depth (ft) | Vertical Depth (ft) | Local Coordinates | | Comment |
|---------------------|---------------------|-------------------|------------|--------------------------------|
| | | +N/-S (ft) | +E/-W (ft) | |
| 300.0 | 300.0 | 0.0 | 0.0 | Start Build 2.50 |
| 1,438.8 | 1,392.5 | 111.2 | -253.9 | Start 4548.1 hold at 1438.8 MD |
| 5,986.9 | 5,390.6 | 981.0 | -2,239.8 | Start Drop -3.00 |
| 6,935.9 | 6,301.0 | 1,073.7 | -2,451.3 | Start 1500.0 hold at 6935.9 MD |
| 8,435.9 | 7,801.0 | 1,073.7 | -2,451.3 | TD at 8435.9 |