



# **ANADARKO PETROLEUM CORP.**

**ANADARKO COLORADO NORTHERN ZONE NAD 83**

**WELD\_REI 13-10 PAD**

**REI 25-10**

**REI 25-10**

**Plan: REI 25-10 (wp01)**

## **Standard Planning Report**

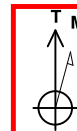
**18 October, 2010**



Project: ANADARKO COLORADO NORTHERN ZONE NAD 83  
 Site: WELD\_REI 13-10 PAD  
 Well: REI 25-10  
 Wellbore: REI 25-10  
 Section:  
 SHL:  
 Design: REI 25-10 (wp01)  
 Latitude: 40° 14' 1.730 N  
 Longitude: 104° 39' 27.734 W  
 GL: 4816.0  
 KB: GL @ 4816.0ft



**Weatherford**



Azimuths to True North  
 Magnetic North: 8.84°  
 Magnetic Field  
 Strength: 53109.1snT  
 Dip Angle: 66.97°  
 Date: 10/11/2010  
 Model: BGGM2010

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4066.0	4873.4	PK Depth
4348.0	5250.3	SX Depth
6828.0	7897.2	NIO Depth
7126.0	8195.2	CD Depth
7194.0	8263.2	GH Depth
7566.0	8635.2	J Depth

#### CASING DETAILS

TVD	MD	Name	Size
750.0	751.9	9 5/8"	9-5/8

#### SECTION DETAILS

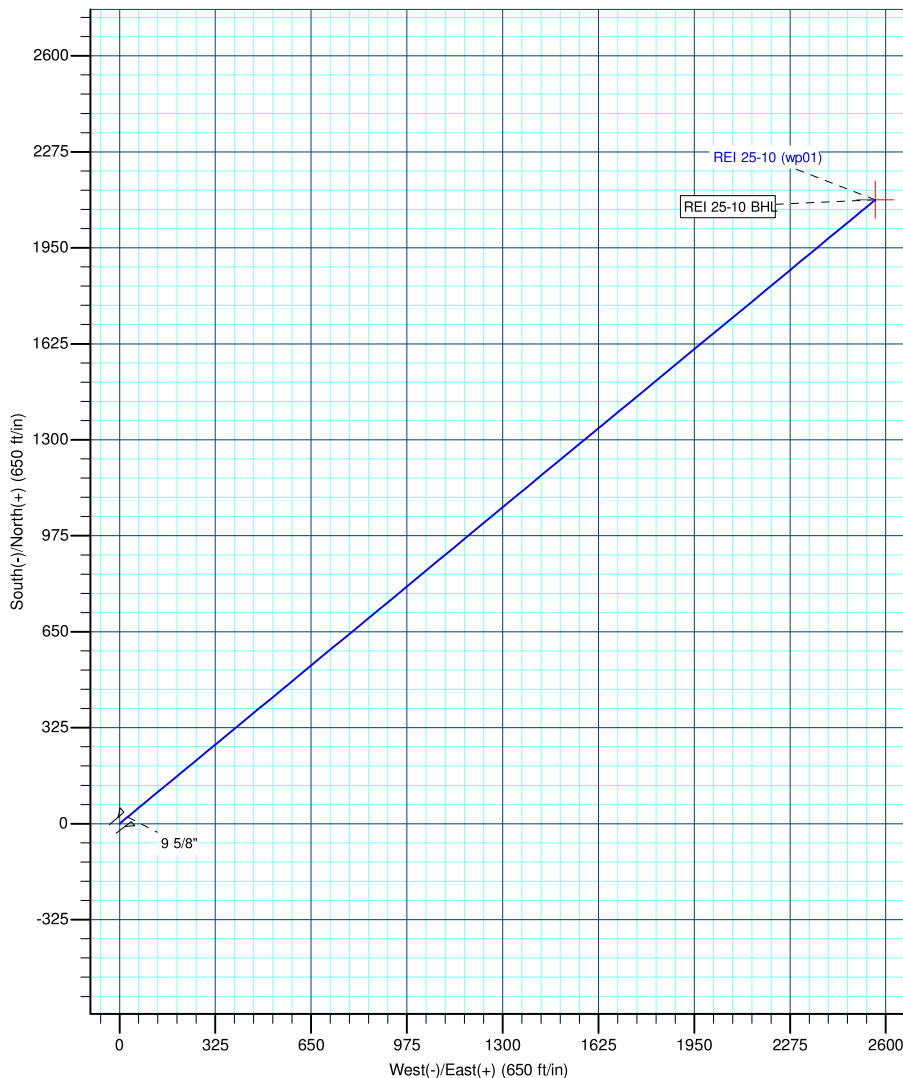
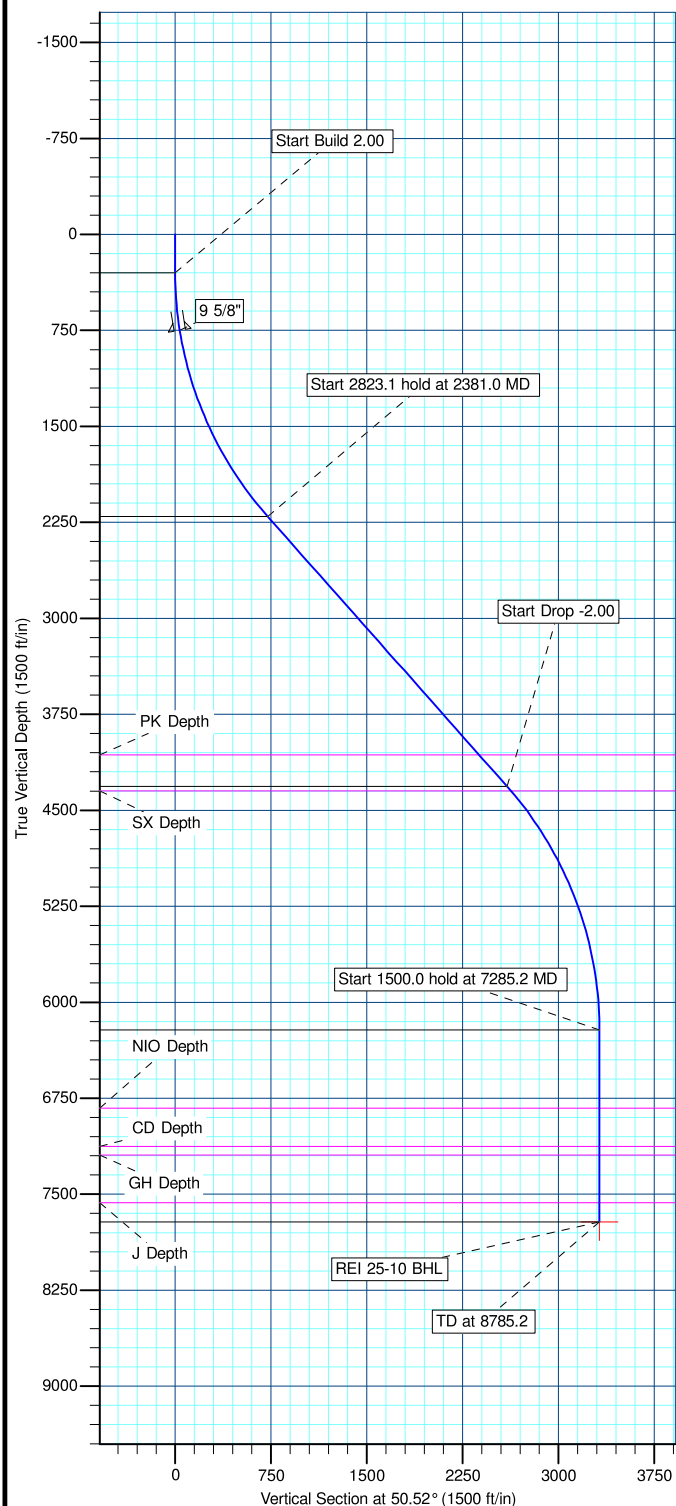
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
300.0	0.00	0.00	300.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2381.0	41.62	50.52	2202.8	459.8	558.2	2.00	50.52	723.2	Start 2823.1 hold at 2381.0 MD
5204.1	41.62	50.52	4313.2	1652.1	2005.4	0.00	0.00	2598.3	Start Drop -2.00
7285.2	0.00	0.00	6216.0	2111.9	2563.6	2.00	180.00	3321.5	Start 1500.0 hold at 7285.2 MD
8785.2	0.00	0.00	7716.0	2111.9	2563.6	0.00	0.00	3321.5	TD at 8785.2

#### WELL DETAILS: REI 25-10

+N/-S	+E/-W	Northing	Ground Level: Easting	4816.0 Latitude	Longitude	Slot
0.0	0.0	1329137.22	3235159.67	40° 14' 1.730 N	104° 39' 27.734 W	

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

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
REI 25-10 BHL	7716.0	2111.9	2563.6	40° 14' 22.600 N	104° 38' 54.676 W	Point



Plan: REI 25-10 (wp01) (REI 25-10/REI 25-10)

Created By: Jason Daguitera Date: 16:46, October 18 2010



# Weatherford International Ltd.

## Planning Report

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REI 25-10
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	GL @ 4816.0ft
<b>Project:</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83	<b>MD Reference:</b>	GL @ 4816.0ft
<b>Site:</b>	WELD_REI 13-10 PAD	<b>North Reference:</b>	True
<b>Well:</b>	REI 25-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	REI 25-10		
<b>Design:</b>	REI 25-10 (wp01)		

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

<b>Site</b>	WELD_REI 13-10 PAD		
<b>Site Position:</b>		<b>Northing:</b>	1,329,137.23ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,235,159.67ft
<b>Position Uncertainty:</b>	0.0 ft	<b>Slot Radius:</b>	"
		<b>Latitude:</b>	40° 14' 1.730 N
		<b>Longitude:</b>	104° 39' 27.734 W
		<b>Grid Convergence:</b>	0.54 °

<b>Well</b>	REI 25-10		
<b>Well Position</b>	<b>+N/-S</b>	0.0 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.0 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	40° 14' 1.730 N
		<b>Longitude:</b>	104° 39' 27.734 W
		<b>Ground Level:</b>	4,816.0ft

<b>Wellbore</b>	REI 25-10				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2010	10/11/2010	8.84	66.97	53,109

<b>Design</b>	REI 25-10 (wp01)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	50.52

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
2,381.0	41.62	50.52	2,202.8	459.8	558.2	2.00	2.00	0.00	50.52	
5,204.1	41.62	50.52	4,313.2	1,652.1	2,005.4	0.00	0.00	0.00	0.00	
7,285.2	0.00	0.00	6,216.0	2,111.9	2,563.6	2.00	-2.00	0.00	180.00	
8,785.2	0.00	0.00	7,716.0	2,111.9	2,563.6	0.00	0.00	0.00	0.00	REI 25-10 BHL

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REI 25-10
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	GL @ 4816.0ft
<b>Project:</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83	<b>MD Reference:</b>	GL @ 4816.0ft
<b>Site:</b>	WELD_REI 13-10 PAD	<b>North Reference:</b>	True
<b>Well:</b>	REI 25-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	REI 25-10		
<b>Design:</b>	REI 25-10 (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
<b>Start Build 2.00</b>									
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00	50.52	400.0	1.1	1.3	1.7	2.00	2.00	0.00
500.0	4.00	50.52	499.8	4.4	5.4	7.0	2.00	2.00	0.00
600.0	6.00	50.52	599.5	10.0	12.1	15.7	2.00	2.00	0.00
700.0	8.00	50.52	698.7	17.7	21.5	27.9	2.00	2.00	0.00
<b>9 5/8"</b>									
751.9	9.04	50.52	750.0	22.6	27.4	35.6	2.00	2.00	0.00
800.0	10.00	50.52	797.5	27.7	33.6	43.5	2.00	2.00	0.00
900.0	12.00	50.52	895.6	39.8	48.3	62.6	2.00	2.00	0.00
1,000.0	14.00	50.52	993.1	54.1	65.7	85.1	2.00	2.00	0.00
1,100.0	16.00	50.52	1,089.6	70.6	85.7	111.0	2.00	2.00	0.00
1,200.0	18.00	50.52	1,185.3	89.2	108.2	140.2	2.00	2.00	0.00
1,300.0	20.00	50.52	1,279.8	109.9	133.3	172.8	2.00	2.00	0.00
1,400.0	22.00	50.52	1,373.2	132.6	161.0	208.6	2.00	2.00	0.00
1,500.0	24.00	50.52	1,465.2	157.5	191.2	247.7	2.00	2.00	0.00
1,600.0	26.00	50.52	1,555.8	184.3	223.8	289.9	2.00	2.00	0.00
1,700.0	28.00	50.52	1,644.9	213.2	258.8	335.3	2.00	2.00	0.00
1,800.0	30.00	50.52	1,732.4	244.0	296.2	383.8	2.00	2.00	0.00
1,900.0	32.00	50.52	1,818.1	276.8	336.0	435.3	2.00	2.00	0.00
2,000.0	34.00	50.52	1,902.0	311.4	378.0	489.8	2.00	2.00	0.00
2,100.0	36.00	50.52	1,983.9	347.9	422.3	547.1	2.00	2.00	0.00
2,200.0	38.00	50.52	2,063.7	386.1	468.7	607.3	2.00	2.00	0.00
2,300.0	40.00	50.52	2,141.5	426.2	517.3	670.2	2.00	2.00	0.00
<b>Start 2823.1 hold at 2381.0 MD</b>									
2,381.0	41.62	50.52	2,202.8	459.8	558.2	723.2	2.00	2.00	0.00
2,400.0	41.62	50.52	2,217.0	467.8	567.9	735.8	0.00	0.00	0.00
2,500.0	41.62	50.52	2,291.7	510.1	619.2	802.2	0.00	0.00	0.00
2,600.0	41.62	50.52	2,366.5	552.3	670.4	868.6	0.00	0.00	0.00
2,700.0	41.62	50.52	2,441.2	594.5	721.7	935.0	0.00	0.00	0.00
2,800.0	41.62	50.52	2,516.0	636.8	773.0	1,001.5	0.00	0.00	0.00
2,900.0	41.62	50.52	2,590.7	679.0	824.2	1,067.9	0.00	0.00	0.00
3,000.0	41.62	50.52	2,665.5	721.2	875.5	1,134.3	0.00	0.00	0.00
3,100.0	41.62	50.52	2,740.2	763.5	926.8	1,200.7	0.00	0.00	0.00
3,200.0	41.62	50.52	2,815.0	805.7	978.0	1,267.1	0.00	0.00	0.00
3,300.0	41.62	50.52	2,889.8	847.9	1,029.3	1,333.6	0.00	0.00	0.00
3,400.0	41.62	50.52	2,964.5	890.2	1,080.5	1,400.0	0.00	0.00	0.00
3,500.0	41.62	50.52	3,039.3	932.4	1,131.8	1,466.4	0.00	0.00	0.00
3,600.0	41.62	50.52	3,114.0	974.6	1,183.1	1,532.8	0.00	0.00	0.00
3,700.0	41.62	50.52	3,188.8	1,016.9	1,234.3	1,599.2	0.00	0.00	0.00
3,800.0	41.62	50.52	3,263.5	1,059.1	1,285.6	1,665.7	0.00	0.00	0.00
3,900.0	41.62	50.52	3,338.3	1,101.3	1,336.9	1,732.1	0.00	0.00	0.00
4,000.0	41.62	50.52	3,413.1	1,143.5	1,388.1	1,798.5	0.00	0.00	0.00
4,100.0	41.62	50.52	3,487.8	1,185.8	1,439.4	1,864.9	0.00	0.00	0.00
4,200.0	41.62	50.52	3,562.6	1,228.0	1,490.7	1,931.3	0.00	0.00	0.00
4,300.0	41.62	50.52	3,637.3	1,270.2	1,541.9	1,997.8	0.00	0.00	0.00
4,400.0	41.62	50.52	3,712.1	1,312.5	1,593.2	2,064.2	0.00	0.00	0.00
4,500.0	41.62	50.52	3,786.8	1,354.7	1,644.5	2,130.6	0.00	0.00	0.00
4,600.0	41.62	50.52	3,861.6	1,396.9	1,695.7	2,197.0	0.00	0.00	0.00
4,700.0	41.62	50.52	3,936.3	1,439.2	1,747.0	2,263.4	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REI 25-10
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	GL @ 4816.0ft
<b>Project:</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83	<b>MD Reference:</b>	GL @ 4816.0ft
<b>Site:</b>	WELD_REI 13-10 PAD	<b>North Reference:</b>	True
<b>Well:</b>	REI 25-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	REI 25-10		
<b>Design:</b>	REI 25-10 (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)
4,800.0	41.62	50.52	4,011.1	1,481.4	1,798.3	2,329.9	0.00	0.00	0.00
<b>PK Depth</b>									
4,873.4	41.62	50.52	4,066.0	1,512.4	1,835.9	2,378.6	0.00	0.00	0.00
4,900.0	41.62	50.52	4,085.9	1,523.6	1,849.5	2,396.3	0.00	0.00	0.00
5,000.0	41.62	50.52	4,160.6	1,565.9	1,900.8	2,462.7	0.00	0.00	0.00
5,100.0	41.62	50.52	4,235.4	1,608.1	1,952.0	2,529.1	0.00	0.00	0.00
5,200.0	41.62	50.52	4,310.1	1,650.3	2,003.3	2,595.5	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,204.1	41.62	50.52	4,313.2	1,652.1	2,005.4	2,598.3	0.00	0.00	0.00
<b>SX Depth</b>									
5,250.3	40.70	50.52	4,348.0	1,671.4	2,028.9	2,628.7	2.00	-2.00	0.00
5,300.0	39.70	50.52	4,385.9	1,691.8	2,053.6	2,660.8	2.00	-2.00	0.00
5,400.0	37.70	50.52	4,464.0	1,731.5	2,101.9	2,723.3	2.00	-2.00	0.00
5,500.0	35.70	50.52	4,544.1	1,769.5	2,148.0	2,783.0	2.00	-2.00	0.00
5,600.0	33.70	50.52	4,626.3	1,805.7	2,192.0	2,840.0	2.00	-2.00	0.00
5,700.0	31.70	50.52	4,710.5	1,840.1	2,233.7	2,894.0	2.00	-2.00	0.00
5,800.0	29.70	50.52	4,796.5	1,872.6	2,273.1	2,945.1	2.00	-2.00	0.00
5,900.0	27.70	50.52	4,884.2	1,903.1	2,310.1	2,993.1	2.00	-2.00	0.00
6,000.0	25.70	50.52	4,973.5	1,931.7	2,344.8	3,038.0	2.00	-2.00	0.00
6,100.0	23.70	50.52	5,064.3	1,958.2	2,377.1	3,079.8	2.00	-2.00	0.00
6,200.0	21.70	50.52	5,156.6	1,982.8	2,406.9	3,118.4	2.00	-2.00	0.00
6,300.0	19.70	50.52	5,250.1	2,005.3	2,434.2	3,153.8	2.00	-2.00	0.00
6,400.0	17.70	50.52	5,344.8	2,025.6	2,458.9	3,185.8	2.00	-2.00	0.00
6,500.0	15.70	50.52	5,440.6	2,043.9	2,481.1	3,214.6	2.00	-2.00	0.00
6,600.0	13.70	50.52	5,537.3	2,060.1	2,500.7	3,239.9	2.00	-2.00	0.00
6,700.0	11.70	50.52	5,634.9	2,074.0	2,517.6	3,261.9	2.00	-2.00	0.00
6,800.0	9.70	50.52	5,733.1	2,085.8	2,532.0	3,280.5	2.00	-2.00	0.00
6,900.0	7.70	50.52	5,832.0	2,095.5	2,543.7	3,295.6	2.00	-2.00	0.00
7,000.0	5.70	50.52	5,931.3	2,102.9	2,552.7	3,307.3	2.00	-2.00	0.00
7,100.0	3.70	50.52	6,030.9	2,108.1	2,559.0	3,315.5	2.00	-2.00	0.00
7,200.0	1.70	50.52	6,130.8	2,111.1	2,562.6	3,320.2	2.00	-2.00	0.00
<b>Start 1500.0 hold at 7285.2 MD</b>									
7,285.2	0.00	0.00	6,216.0	2,111.9	2,563.6	3,321.5	2.00	-2.00	0.00
7,300.0	0.00	0.00	6,230.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
7,400.0	0.00	0.00	6,330.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
7,500.0	0.00	0.00	6,430.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
7,600.0	0.00	0.00	6,530.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
7,700.0	0.00	0.00	6,630.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
7,800.0	0.00	0.00	6,730.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
<b>NIO Depth</b>									
7,897.2	0.00	0.00	6,828.0	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
7,900.0	0.00	0.00	6,830.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
8,000.0	0.00	0.00	6,930.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
8,100.0	0.00	0.00	7,030.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
<b>CD Depth</b>									
8,195.2	0.00	0.00	7,126.0	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
8,200.0	0.00	0.00	7,130.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
<b>GH Depth</b>									
8,263.2	0.00	0.00	7,194.0	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
8,300.0	0.00	0.00	7,230.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
8,400.0	0.00	0.00	7,330.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
8,500.0	0.00	0.00	7,430.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00



# Weatherford International Ltd.

## Planning Report

<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well REI 25-10
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	GL @ 4816.0ft
<b>Project:</b>	ANADARKO COLORADO NORTHERN ZONE NAD 83	<b>MD Reference:</b>	GL @ 4816.0ft
<b>Site:</b>	WELD_REI 13-10 PAD	<b>North Reference:</b>	True
<b>Well:</b>	REI 25-10	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	REI 25-10		
<b>Design:</b>	REI 25-10 (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)
8,600.0	0.00	0.00	7,530.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
<b>J Depth</b>									
8,635.2	0.00	0.00	7,566.0	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
8,700.0	0.00	0.00	7,630.8	2,111.9	2,563.6	3,321.5	0.00	0.00	0.00
<b>TD at 8785.2</b>									
8,785.2	0.00	0.00	7,716.0	2,111.9	2,563.6	3,321.5	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									
REI 25-10 BHL	0.00	0.00	7,716.0	2,111.9	2,563.6	1,331,273.38	3,237,703.11	40° 14' 22.600 N	104° 38' 54.676 W
- plan hits target center									
- Point									

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
751.9	750.0	9 5/8"	9-5/8	12-1/4

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
8,195.2	7,126.0	CD Depth			
8,635.2	7,566.0	J Depth			
8,263.2	7,194.0	GH Depth			
4,873.4	4,066.0	PK Depth			
5,250.3	4,348.0	SX Depth			
7,897.2	6,828.0	NIO Depth			

### 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 2.00
2,381.0	2,202.8	459.8	558.2	Start 2823.1 hold at 2381.0 MD
5,204.1	4,313.2	1,652.1	2,005.4	Start Drop -2.00
7,285.2	6,216.0	2,111.9	2,563.6	Start 1500.0 hold at 7285.2 MD
8,785.2	7,716.0	2,111.9	2,563.6	TD at 8785.2