



ANADARKO PETROLEUM CORP.

ANADARKO COLORADO NORTHERN ZONE NAD 83

WELD_Reigle

REIGLE 17-4

REIGLE 17-4

Plan: REIGLE 17-4 (wp01)

Standard Planning Report

30 September, 2010



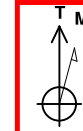
Weatherford®



Project: ANADARKO COLORADO NORTHERN ZONE NAD 83
 Site: WELD_Reigle
 Well: REIGLE 17-4
 Wellbore: REIGLE 17-4
 Section:
 SHL:
 Design: REIGLE 17-4 (wp01)
 Latitude: 40° 10' 6.524 N
 Longitude: 104° 40' 8.940 W
 GL: 4861.0
 KB: WELL @ 4861.0ft (Original Well Elev)



Weatherford



Azimuths to True North
 Magnetic North: 8.85°

Magnetic Field
 Strength: 53076.0snT
 Dip Angle: 66.92°
 Date: 9/30/2010
 Model: BGGM2010

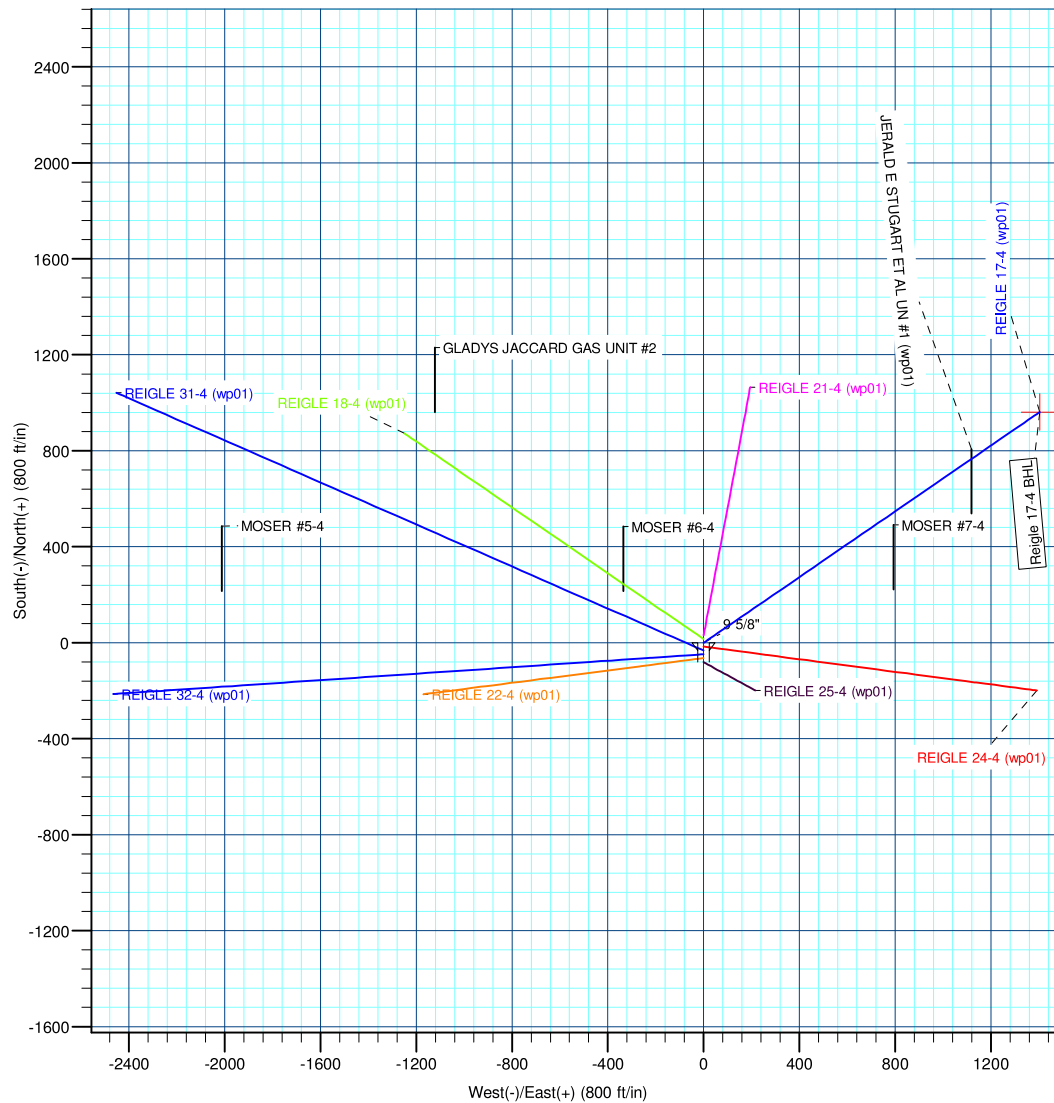
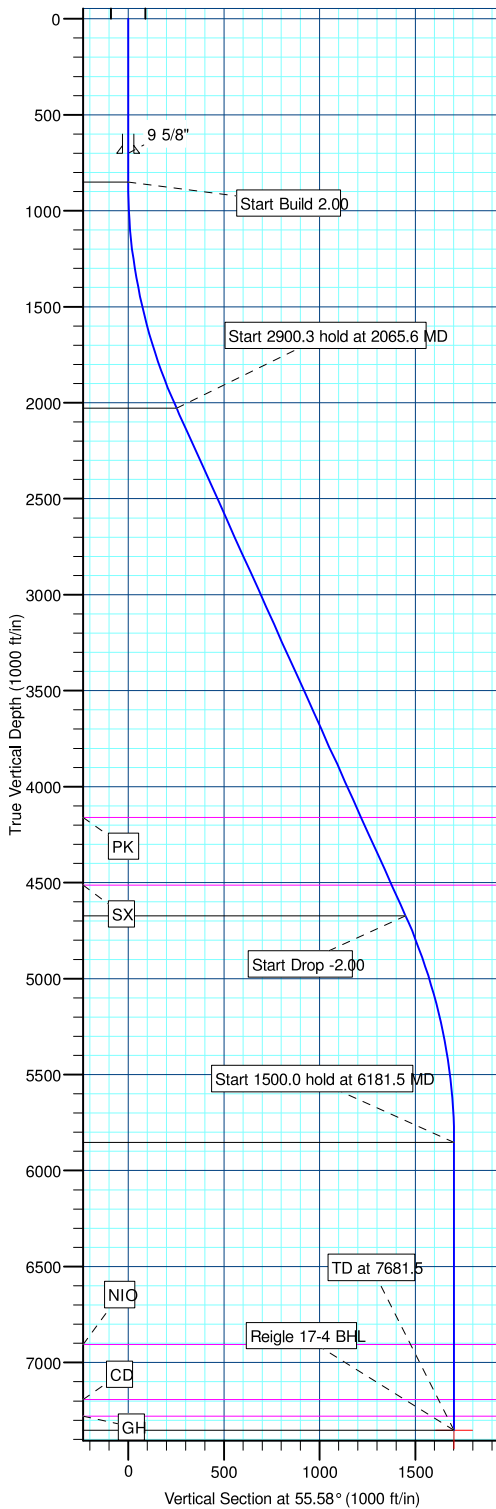
FORMATION TOP DETAILS		
TVDPATH	MDPATH	FORMATION
4161.0	4404.6	PK
4513.0	4790.8	SX
6907.0	7236.5	NIO
7192.0	7521.5	CD
7279.0	7608.5	GH

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	
850.0	0.00	0.00	850.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2065.6	24.31	55.58	2029.5	143.6	209.6	2.00	55.58	254.1	Start 2900.3 hold at 2065.6 MD
4965.9	24.31	55.58	4672.5	818.5	1194.6	0.00	0.00	1448.2	Start Drop -2.00
6181.5	0.00	0.00	5852.0	962.1	1404.2	2.00	180.00	1702.2	Start 1500.0 hold at 6181.5 MD
7681.5	0.00	0.00	7352.0	962.1	1404.2	0.00	0.00	1702.2	TD at 7681.5

CASING DETAILS			
TVD	MD	Name	Size
700.0	700.0		9-5/8"

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N-S	+E-W	Latitude	Longitude	Shape
Reigle 17-4 BHL	7352.0	962.1	1404.2	40° 10' 16.032 N	104° 39' 50.850 W	Point

WELL DETAILS: REIGLE 17-4						
+N-S	+E-W	Northing	Ground Level: Easting	4861.0 Latitude	Longitude	Slot
0.0	0.0	1305307.67	3232187.17	40° 10' 6.524 N	104° 40' 8.940 W	



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well REIGLE 17-4
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 17-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	REIGLE 17-4		
Design:	REIGLE 17-4 (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 17-4					
Well Position	+N/-S	0.0 ft	Northing:	1,305,307.67 ft	Latitude:	40° 10' 6.524 N
	+E/-W	0.0 ft	Easting:	3,232,187.17 ft	Longitude:	104° 40' 8.940 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,861.0 ft

Wellbore	REIGLE 17-4				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	9/30/2010	8.85	66.92	53,076

Design	REIGLE 17-4 (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	55.58

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	
850.0	0.00	0.00	850.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,065.6	24.31	55.58	2,029.5	143.6	209.6	2.00	2.00	0.00	55.58	
4,965.9	24.31	55.58	4,672.5	818.5	1,194.6	0.00	0.00	0.00	0.00	
6,181.5	0.00	0.00	5,852.0	962.1	1,404.2	2.00	-2.00	0.00	180.00	
7,681.5	0.00	0.00	7,352.0	962.1	1,404.2	0.00	0.00	0.00	0.00	Reigle 17-4 BHL

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well REIGLE 17-4
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 17-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	REIGLE 17-4		
Design:	REIGLE 17-4 (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
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
9 5/8"									
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
850.0	0.00	0.00	850.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	1.00	55.58	900.0	0.2	0.4	0.4	2.00	2.00	0.00
1,000.0	3.00	55.58	999.9	2.2	3.2	3.9	2.00	2.00	0.00
1,100.0	5.00	55.58	1,099.7	6.2	9.0	10.9	2.00	2.00	0.00
1,200.0	7.00	55.58	1,199.1	12.1	17.6	21.4	2.00	2.00	0.00
1,300.0	9.00	55.58	1,298.2	19.9	29.1	35.3	2.00	2.00	0.00
1,400.0	11.00	55.58	1,396.6	29.7	43.4	52.6	2.00	2.00	0.00
1,500.0	13.00	55.58	1,494.4	41.5	60.6	73.4	2.00	2.00	0.00
1,600.0	15.00	55.58	1,591.5	55.2	80.5	97.6	2.00	2.00	0.00
1,700.0	17.00	55.58	1,687.6	70.8	103.3	125.2	2.00	2.00	0.00
1,800.0	19.00	55.58	1,782.7	88.2	128.8	156.1	2.00	2.00	0.00
1,900.0	21.00	55.58	1,876.6	107.5	157.0	190.3	2.00	2.00	0.00
2,000.0	23.00	55.58	1,969.4	128.7	187.9	227.7	2.00	2.00	0.00
2,065.6	24.31	55.58	2,029.5	143.6	209.6	254.1	2.00	2.00	0.00
2,100.0	24.31	55.58	2,060.8	151.6	221.3	268.2	0.00	0.00	0.00
2,200.0	24.31	55.58	2,151.9	174.9	255.2	309.4	0.00	0.00	0.00
2,300.0	24.31	55.58	2,243.1	198.1	289.2	350.6	0.00	0.00	0.00
2,400.0	24.31	55.58	2,334.2	221.4	323.2	391.7	0.00	0.00	0.00
2,500.0	24.31	55.58	2,425.3	244.7	357.1	432.9	0.00	0.00	0.00
2,600.0	24.31	55.58	2,516.5	268.0	391.1	474.1	0.00	0.00	0.00
2,700.0	24.31	55.58	2,607.6	291.2	425.1	515.2	0.00	0.00	0.00
2,800.0	24.31	55.58	2,698.7	314.5	459.0	556.4	0.00	0.00	0.00
2,900.0	24.31	55.58	2,789.8	337.8	493.0	597.6	0.00	0.00	0.00
3,000.0	24.31	55.58	2,881.0	361.0	526.9	638.8	0.00	0.00	0.00
3,100.0	24.31	55.58	2,972.1	384.3	560.9	679.9	0.00	0.00	0.00
3,200.0	24.31	55.58	3,063.2	407.6	594.9	721.1	0.00	0.00	0.00
3,300.0	24.31	55.58	3,154.4	430.8	628.8	762.3	0.00	0.00	0.00
3,400.0	24.31	55.58	3,245.5	454.1	662.8	803.5	0.00	0.00	0.00
3,500.0	24.31	55.58	3,336.6	477.4	696.8	844.6	0.00	0.00	0.00
3,600.0	24.31	55.58	3,427.8	500.7	730.7	885.8	0.00	0.00	0.00
3,700.0	24.31	55.58	3,518.9	523.9	764.7	927.0	0.00	0.00	0.00
3,800.0	24.31	55.58	3,610.0	547.2	798.7	968.1	0.00	0.00	0.00
3,900.0	24.31	55.58	3,701.2	570.5	832.6	1,009.3	0.00	0.00	0.00
4,000.0	24.31	55.58	3,792.3	593.7	866.6	1,050.5	0.00	0.00	0.00
4,100.0	24.31	55.58	3,883.4	617.0	900.6	1,091.7	0.00	0.00	0.00
4,200.0	24.31	55.58	3,974.6	640.3	934.5	1,132.8	0.00	0.00	0.00
4,300.0	24.31	55.58	4,065.7	663.6	968.5	1,174.0	0.00	0.00	0.00
4,400.0	24.31	55.58	4,156.8	686.8	1,002.4	1,215.2	0.00	0.00	0.00
PK Depth									
4,404.6	24.31	55.58	4,161.0	687.9	1,004.0	1,217.1	0.00	0.00	0.00
4,500.0	24.31	55.58	4,247.9	710.1	1,036.4	1,256.3	0.00	0.00	0.00
4,600.0	24.31	55.58	4,339.1	733.4	1,070.4	1,297.5	0.00	0.00	0.00
4,700.0	24.31	55.58	4,430.2	756.6	1,104.3	1,338.7	0.00	0.00	0.00

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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 17-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	REIGLE 17-4		
Design:	REIGLE 17-4 (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)
SX									
4,790.8	24.31	55.58	4,513.0	777.8	1,135.2	1,376.1	0.00	0.00	0.00
4,800.0	24.31	55.58	4,521.3	779.9	1,138.3	1,379.9	0.00	0.00	0.00
4,900.0	24.31	55.58	4,612.5	803.2	1,172.3	1,421.0	0.00	0.00	0.00
4,965.9	24.31	55.58	4,672.5	818.5	1,194.6	1,448.2	0.00	0.00	0.00
5,000.0	23.63	55.58	4,703.7	826.3	1,206.1	1,462.0	2.00	-2.00	0.00
5,100.0	21.63	55.58	4,796.0	848.1	1,237.8	1,500.5	2.00	-2.00	0.00
5,200.0	19.63	55.58	4,889.6	868.0	1,266.9	1,535.7	2.00	-2.00	0.00
5,300.0	17.63	55.58	4,984.3	886.1	1,293.2	1,567.7	2.00	-2.00	0.00
5,400.0	15.63	55.58	5,080.1	902.2	1,316.8	1,596.3	2.00	-2.00	0.00
5,500.0	13.63	55.58	5,176.9	916.5	1,337.7	1,621.5	2.00	-2.00	0.00
5,600.0	11.63	55.58	5,274.5	928.9	1,355.7	1,643.4	2.00	-2.00	0.00
5,700.0	9.63	55.58	5,372.7	939.3	1,370.9	1,661.9	2.00	-2.00	0.00
5,800.0	7.63	55.58	5,471.6	947.8	1,383.3	1,676.9	2.00	-2.00	0.00
5,900.0	5.63	55.58	5,570.9	954.3	1,392.8	1,688.4	2.00	-2.00	0.00
6,000.0	3.63	55.58	5,670.6	958.9	1,399.5	1,696.5	2.00	-2.00	0.00
6,100.0	1.63	55.58	5,770.5	961.5	1,403.3	1,701.1	2.00	-2.00	0.00
6,181.5	0.00	0.00	5,852.0	962.1	1,404.2	1,702.2	2.00	-2.00	0.00
6,200.0	0.00	0.00	5,870.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
6,300.0	0.00	0.00	5,970.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
6,400.0	0.00	0.00	6,070.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
6,500.0	0.00	0.00	6,170.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
6,600.0	0.00	0.00	6,270.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
6,700.0	0.00	0.00	6,370.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
6,800.0	0.00	0.00	6,470.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
6,900.0	0.00	0.00	6,570.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
7,000.0	0.00	0.00	6,670.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
7,100.0	0.00	0.00	6,770.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
7,200.0	0.00	0.00	6,870.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
NIO									
7,236.5	0.00	0.00	6,907.0	962.1	1,404.2	1,702.2	0.00	0.00	0.00
7,300.0	0.00	0.00	6,970.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
7,400.0	0.00	0.00	7,070.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
7,500.0	0.00	0.00	7,170.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
CD									
7,521.5	0.00	0.00	7,192.0	962.1	1,404.2	1,702.2	0.00	0.00	0.00
7,600.0	0.00	0.00	7,270.5	962.1	1,404.2	1,702.2	0.00	0.00	0.00
GH									
7,608.5	0.00	0.00	7,279.0	962.1	1,404.2	1,702.2	0.00	0.00	0.00
7,681.5	0.00	0.00	7,352.0	962.1	1,404.2	1,702.2	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
Reigle 17-4 BHL - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	7,352.0	962.1	1,404.2	1,306,282.90	3,233,582.33	40° 10' 16.032 N	104° 39' 50.850 W

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well REIGLE 17-4
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 17-4	Survey Calculation Method:	Minimum Curvature
Wellbore:	REIGLE 17-4		
Design:	REIGLE 17-4 (wp01)		

Casing Points

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

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,790.8	4,513.0	SX			
7,521.5	7,192.0	CD			
4,404.6	4,161.0	PK Depth			
7,608.5	7,279.0	GH			
7,236.5	6,907.0	NIO			