

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_BARCLAY 1-28HZ PAD**

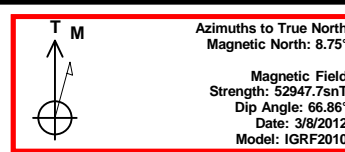
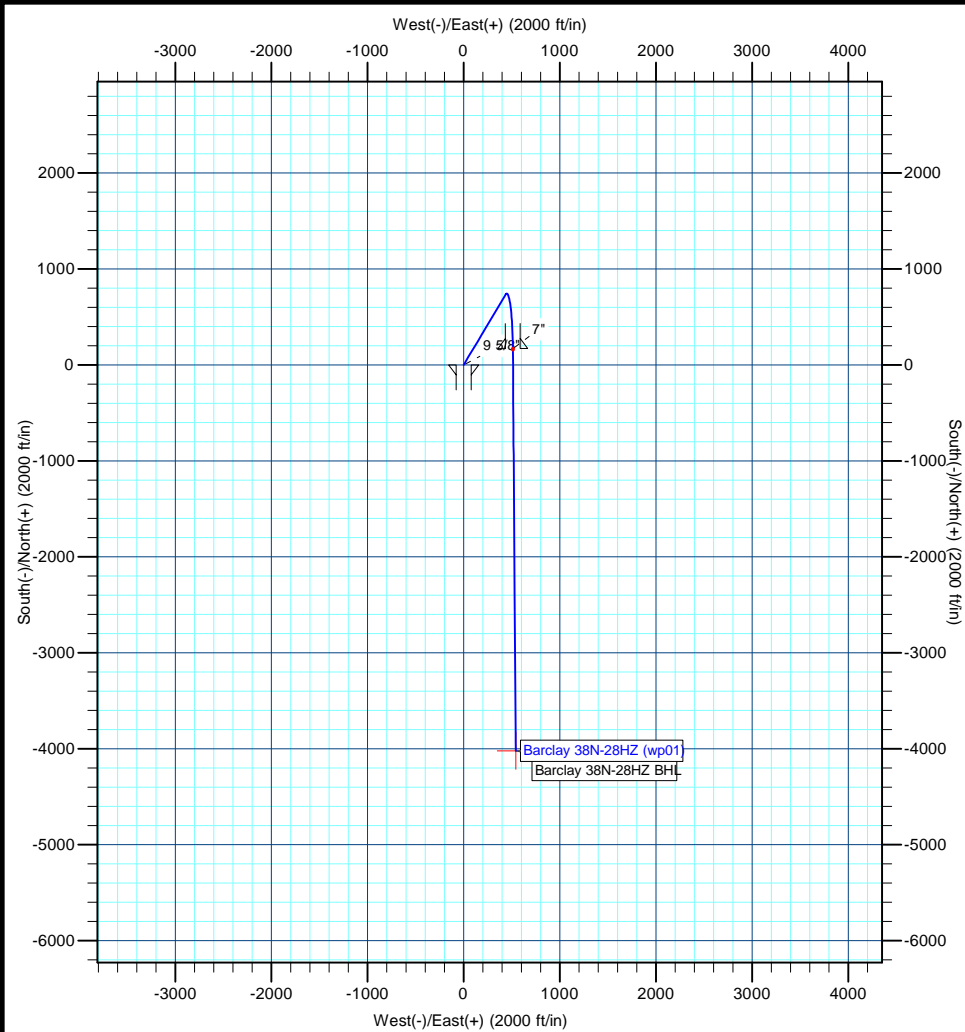
**Barclay 38N-28HZ**

**Barclay 38N-28HZ**

**Plan: Barclay 38N-28HZ (wp01)**

## **Standard Planning Report**

**08 March, 2012**



Project: COLORADO NORTHERN ZONE - 83  
 Site: WELD BARCLAY 1-28HZ PAD  
 Well: Barclay 38N-28HZ  
 Wellbore: Barclay 38N-28HZ  
 Section:  
 SHL:  
 Design: Barclay 38N-28HZ (wp01)  
 Latitude: 40.201093  
 Longitude: -104.774951  
 GL: 4945.00  
 KB: rkb + gl @ 4962.00ft

#### WELL DETAILS: Barclay 38N-28HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	4945.00 Latitude	Longitude	Slot
0.00	0.00	1316928.58	3202523.87	40.201093	-104.774951	

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
2571.81	11.44	30.79	2568.02	48.86	29.12	2.00	30.79	-44.54
6599.29	11.44	30.79	6515.54	734.84	437.92	0.00	0.00	-669.87
7597.63	90.07	179.58	7182.00	170.00	512.00	10.00	148.27	-100.19
7599.36	90.07	179.60	7182.00	168.28	512.01	1.00	99.64	-98.48
1790.87	90.07	179.60	7177.00	-4023.13	541.43	0.00	0.00	4059.40

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

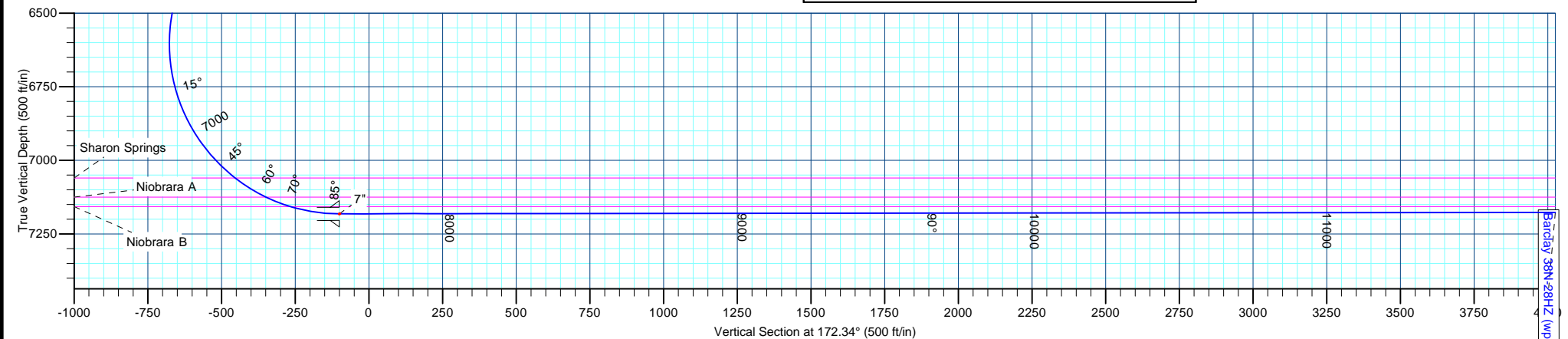
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Barclay 38N-28HZ BHL	7177.00	-4023.13	541.43	40.190049	-104.773013	Point

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3992.00	4024.63	Parkman
4401.00	4441.92	Sussex
7060.00	7214.96	Sharon Springs
7125.00	7338.46	Niobrara A
7157.00	7426.57	Niobrara B

#### CASING DETAILS

TVD	MD	Name	Size
700.00	700.00	9 5/8"	9-5/8
7182.00	7597.63	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Barclay 38N-28HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 4962.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 4962.00ft
<b>Site:</b>	WELD_BARCLAY 1-28HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	Barclay 38N-28HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Barclay 38N-28HZ		
<b>Design:</b>	Barclay 38N-28HZ (wp01)		

<b>Project</b>	COLORADO NORTHERN ZONE - 83		
<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_BARCLAY 1-28HZ PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,316,898.73 usft	<b>Latitude:</b> 40.201011
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,202,524.67 usft	<b>Longitude:</b> -104.774949
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.47 °

<b>Well</b>	Barclay 38N-28HZ			
<b>Well Position</b>	<b>+N/-S</b>	29.86 ft	<b>Northing:</b>	1,316,928.58 usft
	<b>+E/-W</b>	-0.56 ft	<b>Easting:</b>	3,202,523.87 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 40.201093
				<b>Longitude:</b> -104.774951
				<b>Ground Level:</b> 4,945.00 ft

<b>Wellbore</b>	Barclay 38N-28HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/8/2012	8.75	66.86	52,948

<b>Design</b>	Barclay 38N-28HZ (wp01)			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	172.34

<b>Plan Sections</b>										
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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,571.81	11.44	30.79	2,568.02	48.86	29.12	2.00	2.00	0.00	30.79	
6,599.29	11.44	30.79	6,515.54	734.84	437.92	0.00	0.00	0.00	0.00	
7,597.63	90.07	179.58	7,182.00	170.00	512.00	10.00	7.88	14.90	148.27	
7,599.36	90.07	179.60	7,182.00	168.28	512.01	1.00	-0.17	0.99	99.64	
11,790.87	90.07	179.60	7,177.00	-4,023.13	541.43	0.00	0.00	0.00	0.00	Barclay 38N-28HZ Bt

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Barclay 38N-28HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 4962.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 4962.00ft
<b>Site:</b>	WELD_BARCLAY 1-28HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	Barclay 38N-28HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Barclay 38N-28HZ		
<b>Design:</b>	Barclay 38N-28HZ (wp01)		

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
100.00	0.00	0.00	100.00	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
300.00	0.00	0.00	300.00	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
500.00	0.00	0.00	500.00	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
700.00	0.00	0.00	700.00	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
900.00	0.00	0.00	900.00	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
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	30.79	2,099.98	1.50	0.89	-1.37	2.00	2.00	0.00
2,200.00	4.00	30.79	2,199.84	5.99	3.57	-5.46	2.00	2.00	0.00
2,300.00	6.00	30.79	2,299.45	13.48	8.03	-12.29	2.00	2.00	0.00
2,400.00	8.00	30.79	2,398.70	23.95	14.27	-21.83	2.00	2.00	0.00
2,500.00	10.00	30.79	2,497.47	37.39	22.28	-34.08	2.00	2.00	0.00
2,571.81	11.44	30.79	2,568.02	48.86	29.12	-44.54	2.00	2.00	0.00
2,600.00	11.44	30.79	2,595.65	53.66	31.98	-48.92	0.00	0.00	0.00
2,700.00	11.44	30.79	2,693.67	70.69	42.13	-64.44	0.00	0.00	0.00
2,800.00	11.44	30.79	2,791.68	87.73	52.28	-79.97	0.00	0.00	0.00
2,900.00	11.44	30.79	2,889.69	104.76	62.43	-95.50	0.00	0.00	0.00
3,000.00	11.44	30.79	2,987.71	121.79	72.58	-111.02	0.00	0.00	0.00
3,100.00	11.44	30.79	3,085.72	138.82	82.73	-126.55	0.00	0.00	0.00
3,200.00	11.44	30.79	3,183.74	155.86	92.88	-142.08	0.00	0.00	0.00
3,300.00	11.44	30.79	3,281.75	172.89	103.03	-157.60	0.00	0.00	0.00
3,400.00	11.44	30.79	3,379.77	189.92	113.18	-173.13	0.00	0.00	0.00
3,500.00	11.44	30.79	3,477.78	206.95	123.33	-188.66	0.00	0.00	0.00
3,600.00	11.44	30.79	3,575.80	223.99	133.48	-204.18	0.00	0.00	0.00
3,700.00	11.44	30.79	3,673.81	241.02	143.63	-219.71	0.00	0.00	0.00
3,800.00	11.44	30.79	3,771.83	258.05	153.78	-235.24	0.00	0.00	0.00
3,900.00	11.44	30.79	3,869.84	275.08	163.93	-250.76	0.00	0.00	0.00
4,000.00	11.44	30.79	3,967.86	292.12	174.08	-266.29	0.00	0.00	0.00
4,024.63	11.44	30.79	3,992.00	296.31	176.58	-270.11	0.00	0.00	0.00
Parkman									
4,100.00	11.44	30.79	4,065.87	309.15	184.23	-281.81	0.00	0.00	0.00
4,200.00	11.44	30.79	4,163.89	326.18	194.38	-297.34	0.00	0.00	0.00
4,300.00	11.44	30.79	4,261.90	343.21	204.53	-312.87	0.00	0.00	0.00
4,400.00	11.44	30.79	4,359.91	360.25	214.68	-328.39	0.00	0.00	0.00
4,441.92	11.44	30.79	4,401.00	367.39	218.94	-334.90	0.00	0.00	0.00
Sussex									
4,500.00	11.44	30.79	4,457.93	377.28	224.83	-343.92	0.00	0.00	0.00
4,600.00	11.44	30.79	4,555.94	394.31	234.98	-359.45	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 4962.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 4962.00ft
<b>Site:</b>	WELD_BARCLAY 1-28HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	Barclay 38N-28HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Barclay 38N-28HZ		
<b>Design:</b>	Barclay 38N-28HZ (wp01)		

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)
4,700.00	11.44	30.79	4,653.96	411.34	245.13	-374.97	0.00	0.00	0.00
4,800.00	11.44	30.79	4,751.97	428.38	255.28	-390.50	0.00	0.00	0.00
4,900.00	11.44	30.79	4,849.99	445.41	265.43	-406.03	0.00	0.00	0.00
5,000.00	11.44	30.79	4,948.00	462.44	275.58	-421.55	0.00	0.00	0.00
5,100.00	11.44	30.79	5,046.02	479.47	285.73	-437.08	0.00	0.00	0.00
5,200.00	11.44	30.79	5,144.03	496.51	295.88	-452.61	0.00	0.00	0.00
5,300.00	11.44	30.79	5,242.05	513.54	306.03	-468.13	0.00	0.00	0.00
5,400.00	11.44	30.79	5,340.06	530.57	316.18	-483.66	0.00	0.00	0.00
5,500.00	11.44	30.79	5,438.08	547.60	326.33	-499.19	0.00	0.00	0.00
5,600.00	11.44	30.79	5,536.09	564.64	336.49	-514.71	0.00	0.00	0.00
5,700.00	11.44	30.79	5,634.10	581.67	346.64	-530.24	0.00	0.00	0.00
5,800.00	11.44	30.79	5,732.12	598.70	356.79	-545.77	0.00	0.00	0.00
5,900.00	11.44	30.79	5,830.13	615.73	366.94	-561.29	0.00	0.00	0.00
6,000.00	11.44	30.79	5,928.15	632.77	377.09	-576.82	0.00	0.00	0.00
6,100.00	11.44	30.79	6,026.16	649.80	387.24	-592.35	0.00	0.00	0.00
6,200.00	11.44	30.79	6,124.18	666.83	397.39	-607.87	0.00	0.00	0.00
6,300.00	11.44	30.79	6,222.19	683.87	407.54	-623.40	0.00	0.00	0.00
6,400.00	11.44	30.79	6,320.21	700.90	417.69	-638.93	0.00	0.00	0.00
6,500.00	11.44	30.79	6,418.22	717.93	427.84	-654.45	0.00	0.00	0.00
6,599.29	11.44	30.79	6,515.54	734.84	437.92	-669.87	0.00	0.00	0.00
6,600.00	11.38	30.98	6,516.24	734.96	437.99	-669.98	10.00	-8.50	26.66
6,700.00	5.99	92.53	6,615.23	743.21	448.31	-676.77	10.00	-5.38	61.55
6,800.00	11.90	149.75	6,714.13	734.05	458.74	-666.30	10.00	5.91	57.22
6,900.00	21.14	163.84	6,809.94	707.75	468.99	-638.88	10.00	9.23	14.09
7,000.00	30.84	169.46	6,899.73	665.13	478.72	-595.34	10.00	9.70	5.62
7,100.00	40.68	172.57	6,980.79	607.47	487.65	-537.00	10.00	9.84	3.11
7,200.00	50.57	174.63	7,050.65	536.53	495.50	-465.65	10.00	9.89	2.06
7,214.96	52.05	174.88	7,060.00	524.90	496.57	-453.98	10.00	9.91	1.71
Sharon Springs									
7,300.00	60.49	176.17	7,107.18	454.46	502.04	-383.44	10.00	9.92	1.51
7,338.46	64.31	176.68	7,125.00	420.45	504.16	-349.45	10.00	9.93	1.33
Niobrara A									
7,400.00	70.42	177.44	7,148.68	363.75	507.06	-292.87	10.00	9.94	1.23
7,426.57	73.06	177.74	7,157.00	338.54	508.12	-267.75	10.00	9.94	1.16
Niobrara B									
7,500.00	80.36	178.55	7,173.87	267.16	510.42	-196.70	10.00	9.94	1.10
7,597.63	90.07	179.58	7,182.00	170.00	512.00	-100.20	10.00	9.94	1.05
7"									
7,599.36	90.07	179.60	7,182.00	168.28	512.01	-98.48	1.00	-0.14	0.99
7,600.00	90.07	179.60	7,182.00	167.63	512.02	-97.85	0.00	0.00	0.00
7,700.00	90.07	179.60	7,181.88	67.64	512.72	1.35	0.00	0.00	0.00
7,800.00	90.07	179.60	7,181.76	-32.36	513.42	100.55	0.00	0.00	0.00
7,900.00	90.07	179.60	7,181.64	-132.36	514.12	199.75	0.00	0.00	0.00
8,000.00	90.07	179.60	7,181.52	-232.36	514.82	298.94	0.00	0.00	0.00
8,100.00	90.07	179.60	7,181.40	-332.35	515.53	398.14	0.00	0.00	0.00
8,200.00	90.07	179.60	7,181.28	-432.35	516.23	497.34	0.00	0.00	0.00
8,300.00	90.07	179.60	7,181.16	-532.35	516.93	596.54	0.00	0.00	0.00
8,400.00	90.07	179.60	7,181.04	-632.35	517.63	695.73	0.00	0.00	0.00
8,500.00	90.07	179.60	7,180.92	-732.34	518.33	794.93	0.00	0.00	0.00
8,600.00	90.07	179.60	7,180.80	-832.34	519.03	894.13	0.00	0.00	0.00
8,700.00	90.07	179.60	7,180.69	-932.34	519.74	993.33	0.00	0.00	0.00
8,800.00	90.07	179.60	7,180.57	-1,032.34	520.44	1,092.53	0.00	0.00	0.00
8,900.00	90.07	179.60	7,180.45	-1,132.33	521.14	1,191.72	0.00	0.00	0.00
9,000.00	90.07	179.60	7,180.33	-1,232.33	521.84	1,290.92	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Barclay 38N-28HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 4962.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 4962.00ft
<b>Site:</b>	WELD_BARCLAY 1-28HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	Barclay 38N-28HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Barclay 38N-28HZ		
<b>Design:</b>	Barclay 38N-28HZ (wp01)		

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)
9,100.00	90.07	179.60	7,180.21	-1,332.33	522.54	1,390.12	0.00	0.00	0.00
9,200.00	90.07	179.60	7,180.09	-1,432.32	523.24	1,489.32	0.00	0.00	0.00
9,300.00	90.07	179.60	7,179.97	-1,532.32	523.95	1,588.51	0.00	0.00	0.00
9,400.00	90.07	179.60	7,179.85	-1,632.32	524.65	1,687.71	0.00	0.00	0.00
9,500.00	90.07	179.60	7,179.73	-1,732.32	525.35	1,786.91	0.00	0.00	0.00
9,600.00	90.07	179.60	7,179.61	-1,832.31	526.05	1,886.11	0.00	0.00	0.00
9,700.00	90.07	179.60	7,179.49	-1,932.31	526.75	1,985.30	0.00	0.00	0.00
9,800.00	90.07	179.60	7,179.37	-2,032.31	527.46	2,084.50	0.00	0.00	0.00
9,900.00	90.07	179.60	7,179.25	-2,132.31	528.16	2,183.70	0.00	0.00	0.00
10,000.00	90.07	179.60	7,179.14	-2,232.30	528.86	2,282.90	0.00	0.00	0.00
10,100.00	90.07	179.60	7,179.02	-2,332.30	529.56	2,382.09	0.00	0.00	0.00
10,200.00	90.07	179.60	7,178.90	-2,432.30	530.26	2,481.29	0.00	0.00	0.00
10,300.00	90.07	179.60	7,178.78	-2,532.30	530.96	2,580.49	0.00	0.00	0.00
10,400.00	90.07	179.60	7,178.66	-2,632.29	531.67	2,679.69	0.00	0.00	0.00
10,500.00	90.07	179.60	7,178.54	-2,732.29	532.37	2,778.89	0.00	0.00	0.00
10,600.00	90.07	179.60	7,178.42	-2,832.29	533.07	2,878.08	0.00	0.00	0.00
10,700.00	90.07	179.60	7,178.30	-2,932.29	533.77	2,977.28	0.00	0.00	0.00
10,800.00	90.07	179.60	7,178.18	-3,032.28	534.47	3,076.48	0.00	0.00	0.00
10,900.00	90.07	179.60	7,178.06	-3,132.28	535.17	3,175.68	0.00	0.00	0.00
11,000.00	90.07	179.60	7,177.94	-3,232.28	535.88	3,274.87	0.00	0.00	0.00
11,100.00	90.07	179.60	7,177.82	-3,332.28	536.58	3,374.07	0.00	0.00	0.00
11,200.00	90.07	179.60	7,177.70	-3,432.27	537.28	3,473.27	0.00	0.00	0.00
11,300.00	90.07	179.60	7,177.59	-3,532.27	537.98	3,572.47	0.00	0.00	0.00
11,400.00	90.07	179.60	7,177.47	-3,632.27	538.68	3,671.66	0.00	0.00	0.00
11,500.00	90.07	179.60	7,177.35	-3,732.27	539.38	3,770.86	0.00	0.00	0.00
11,600.00	90.07	179.60	7,177.23	-3,832.26	540.09	3,870.06	0.00	0.00	0.00
11,700.00	90.07	179.60	7,177.11	-3,932.26	540.79	3,969.26	0.00	0.00	0.00
11,790.87	90.07	179.60	7,177.00	-4,023.13	541.43	4,059.40	0.00	0.00	0.00
Barclay 38N-28HZ BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Barclay 38N-28HZ BHL	0.00	0.00	7,177.00	-4,023.13	541.43	1,312,910.02	3,203,098.17	40.190049	-104.773013
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
700.00	700.00	9 5/8"	9-5/8	12-1/4	
7,597.63	7,182.00	7"	7	8-3/4	

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Barclay 38N-28HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 4962.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 4962.00ft
<b>Site:</b>	WELD_BARCLAY 1-28HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	Barclay 38N-28HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Barclay 38N-28HZ		
<b>Design:</b>	Barclay 38N-28HZ (wp01)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,024.63	3,992.00	Parkman				
4,441.92	4,401.00	Sussex				
7,214.96	7,060.00	Sharon Springs				
7,338.46	7,125.00	Niobrara A				
7,426.57	7,157.00	Niobrara B				