

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_RATTLER PAD 1

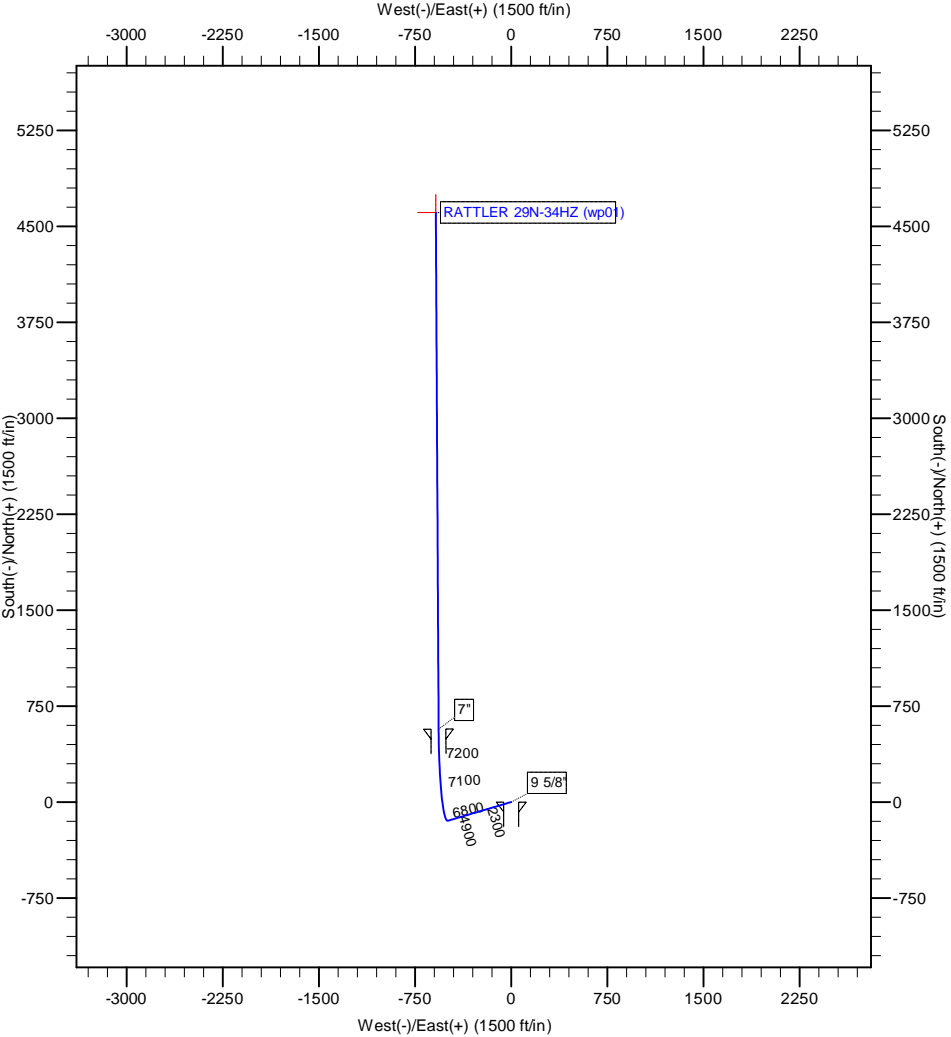
RATTLER 29N-34HZ

RATTLER 29N-34HZ

Plan: RATTLER 29N-34HZ (wp01)

Standard Planning Report

24 October, 2011



T

M

A

Azimuths to True North

Magnetic North: 8.80°

Magnetic Field

Strength: 52973.7snT

Dip Angle: 66.86°

Date: 10/24/2011

Model: IGRF2010



Project: COLORADO NORTHERN ZONE - 83

Site: WELD_RATTLER PAD 1

Well: RATTLER 29N-34HZ

Wellbore: RATTLER 29N-34HZ

Section:

SHL:

Design: RATTLER 29N-34HZ (wp01)

Latitude: 40.174919

Longitude: -104.765838

GL: 4990.00

KB: RKB + GL @ 5007.00ft

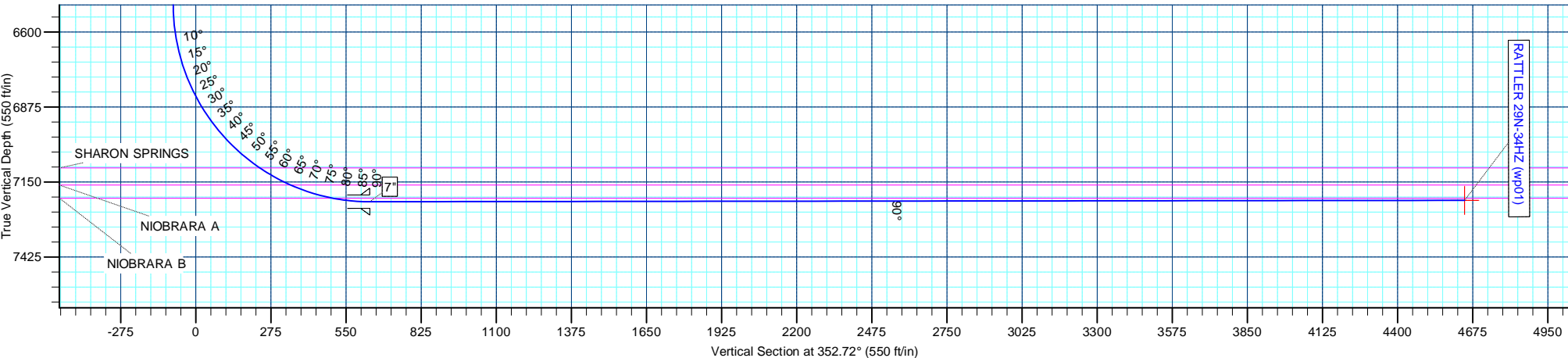
WELL DETAILS: RATTLER 29N-34HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4990.00 Latitude	Longitude	Slot
0.00	0.00	1307415.13	3205148.23	40.174919	-104.765838	

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
1050.00	0.00	0.00	1050.00	0.00	0.00	0.00	0.00	0.00
1327.96	5.56	253.52	1327.53	-3.82	-12.92	2.00	253.52	-2.15
6514.49	5.56	253.52	6489.66	-146.39	-494.71	0.00	0.00	-82.49
7659.66	90.07	359.70	7222.00	570.00	-567.00	8.00	106.11	637.29
7660.90	90.07	359.69	7222.00	571.24	-567.01	1.00	-65.94	638.52
11697.54	90.07	359.69	7217.00	4607.82	-588.94	0.00	0.00	4645.31

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	
RATTLER 29N-34HZ BHL	7217.00	4607.82	-588.94	40.187568	-104.767946	Point	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
2649.00	2655.68	PARKMAN
4707.00	4723.41	SUSSEX
7098.00	7230.09	SHARON SPRINGS
7161.00	7360.44	NIOBRARA A
7209.00	7521.86	NIOBRARA B

CASING DETAILS			
TVD	MD	Name	Size
900.00	900.00	9 5/8"	9-5/8
7222.00	7659.66	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well RATTLER 29N-34HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	RKB + GL @ 5007.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 5007.00ft
Site:	WELD_RATTLER PAD 1	North Reference:	True
Well:	RATTLER 29N-34HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	RATTLER 29N-34HZ		
Design:	RATTLER 29N-34HZ (wp01)		

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

Site		WELD_RATTLER PAD 1			
Site Position:		Northing:	1,307,415.13 usft	Latitude:	40.174919
From:	Lat/Long	Easting:	3,205,148.23 usft	Longitude:	-104.765838
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.47 °

Well		RATTLER 29N-34HZ				
Well Position	+N-S	0.00 ft	Northing:	1,307,415.13 usft	Latitude:	40.174919
	+E-W	0.00 ft	Easting:	3,205,148.23 usft	Longitude:	-104.765838
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,990.00 ft

Wellbore	RATTLER 29N-34HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/24/2011	8.80	66.86	52,974

Design	RATTLER 29N-34HZ (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	352.72

Plan Sections										
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	
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,327.96	5.56	253.52	1,327.53	-3.82	-12.92	2.00	2.00	0.00	253.52	
6,514.49	5.56	253.52	6,489.66	-146.39	-494.71	0.00	0.00	0.00	0.00	
7,659.66	90.07	359.70	7,222.00	570.00	-567.00	8.00	7.38	9.27	106.11	
7,660.90	90.07	359.69	7,222.00	571.24	-567.01	1.00	0.41	-0.91	-65.94	
11,697.54	90.07	359.69	7,217.00	4,607.82	-588.94	0.00	0.00	0.00	0.00	RATTLER 29N-34HZ

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well RATTLER 29N-34HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	RKB + GL @ 5007.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 5007.00ft
Site:	WELD_RATTLER PAD 1	North Reference:	True
Well:	RATTLER 29N-34HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	RATTLER 29N-34HZ		
Design:	RATTLER 29N-34HZ (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
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
9 5/8"									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,050.00	0.00	0.00	1,050.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,100.00	1.00	253.52	1,100.00	-0.12	-0.42	-0.07	2.00	2.00	0.00
1,200.00	3.00	253.52	1,199.93	-1.11	-3.76	-0.63	2.00	2.00	0.00
1,300.00	5.00	253.52	1,299.68	-3.09	-10.45	-1.74	2.00	2.00	0.00
1,327.96	5.56	253.52	1,327.53	-3.82	-12.92	-2.15	2.00	2.00	0.00
Start 5186.53 hold at 1327.96 MD									
1,400.00	5.56	253.52	1,399.23	-5.80	-19.61	-3.27	0.00	0.00	0.00
1,500.00	5.56	253.52	1,498.75	-8.55	-28.90	-4.82	0.00	0.00	0.00
1,600.00	5.56	253.52	1,598.28	-11.30	-38.19	-6.37	0.00	0.00	0.00
1,700.00	5.56	253.52	1,697.81	-14.05	-47.48	-7.92	0.00	0.00	0.00
1,800.00	5.56	253.52	1,797.34	-16.80	-56.77	-9.47	0.00	0.00	0.00
1,900.00	5.56	253.52	1,896.87	-19.55	-66.06	-11.01	0.00	0.00	0.00
2,000.00	5.56	253.52	1,996.40	-22.30	-75.35	-12.56	0.00	0.00	0.00
2,100.00	5.56	253.52	2,095.93	-25.04	-84.64	-14.11	0.00	0.00	0.00
2,200.00	5.56	253.52	2,195.46	-27.79	-93.93	-15.66	0.00	0.00	0.00
2,300.00	5.56	253.52	2,294.99	-30.54	-103.22	-17.21	0.00	0.00	0.00
2,400.00	5.56	253.52	2,394.52	-33.29	-112.51	-18.76	0.00	0.00	0.00
2,500.00	5.56	253.52	2,494.05	-36.04	-121.79	-20.31	0.00	0.00	0.00
2,600.00	5.56	253.52	2,593.58	-38.79	-131.08	-21.86	0.00	0.00	0.00
2,655.68	5.56	253.52	2,649.00	-40.32	-136.26	-22.72	0.00	0.00	0.00
PARKMAN									
2,700.00	5.56	253.52	2,693.11	-41.54	-140.37	-23.41	0.00	0.00	0.00
2,800.00	5.56	253.52	2,792.64	-44.29	-149.66	-24.95	0.00	0.00	0.00
2,900.00	5.56	253.52	2,892.17	-47.03	-158.95	-26.50	0.00	0.00	0.00
3,000.00	5.56	253.52	2,991.70	-49.78	-168.24	-28.05	0.00	0.00	0.00
3,100.00	5.56	253.52	3,091.23	-52.53	-177.53	-29.60	0.00	0.00	0.00
3,200.00	5.56	253.52	3,190.76	-55.28	-186.82	-31.15	0.00	0.00	0.00
3,300.00	5.56	253.52	3,290.29	-58.03	-196.11	-32.70	0.00	0.00	0.00
3,400.00	5.56	253.52	3,389.82	-60.78	-205.40	-34.25	0.00	0.00	0.00
3,500.00	5.56	253.52	3,489.35	-63.53	-214.69	-35.80	0.00	0.00	0.00
3,600.00	5.56	253.52	3,588.88	-66.28	-223.98	-37.35	0.00	0.00	0.00
3,700.00	5.56	253.52	3,688.41	-69.03	-233.27	-38.89	0.00	0.00	0.00
3,800.00	5.56	253.52	3,787.94	-71.77	-242.56	-40.44	0.00	0.00	0.00
3,900.00	5.56	253.52	3,887.47	-74.52	-251.85	-41.99	0.00	0.00	0.00
4,000.00	5.56	253.52	3,987.00	-77.27	-261.13	-43.54	0.00	0.00	0.00
4,100.00	5.56	253.52	4,086.53	-80.02	-270.42	-45.09	0.00	0.00	0.00
4,200.00	5.56	253.52	4,186.06	-82.77	-279.71	-46.64	0.00	0.00	0.00
4,300.00	5.56	253.52	4,285.59	-85.52	-289.00	-48.19	0.00	0.00	0.00
4,400.00	5.56	253.52	4,385.12	-88.27	-298.29	-49.74	0.00	0.00	0.00
4,500.00	5.56	253.52	4,484.64	-91.02	-307.58	-51.29	0.00	0.00	0.00
4,600.00	5.56	253.52	4,584.17	-93.76	-316.87	-52.83	0.00	0.00	0.00
4,700.00	5.56	253.52	4,683.70	-96.51	-326.16	-54.38	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well RATTLER 29N-34HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	RKB + GL @ 5007.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 5007.00ft
Site:	WELD_RATTLER PAD 1	North Reference:	True
Well:	RATTLER 29N-34HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	RATTLER 29N-34HZ		
Design:	RATTLER 29N-34HZ (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)
4,723.41	5.56	253.52	4,707.00	-97.16	-328.33	-54.75	0.00	0.00	0.00
SUSSEX									
4,800.00	5.56	253.52	4,783.23	-99.26	-335.45	-55.93	0.00	0.00	0.00
4,900.00	5.56	253.52	4,882.76	-102.01	-344.74	-57.48	0.00	0.00	0.00
5,000.00	5.56	253.52	4,982.29	-104.76	-354.03	-59.03	0.00	0.00	0.00
5,100.00	5.56	253.52	5,081.82	-107.51	-363.32	-60.58	0.00	0.00	0.00
5,200.00	5.56	253.52	5,181.35	-110.26	-372.61	-62.13	0.00	0.00	0.00
5,300.00	5.56	253.52	5,280.88	-113.01	-381.90	-63.68	0.00	0.00	0.00
5,400.00	5.56	253.52	5,380.41	-115.75	-391.18	-65.22	0.00	0.00	0.00
5,500.00	5.56	253.52	5,479.94	-118.50	-400.47	-66.77	0.00	0.00	0.00
5,600.00	5.56	253.52	5,579.47	-121.25	-409.76	-68.32	0.00	0.00	0.00
5,700.00	5.56	253.52	5,679.00	-124.00	-419.05	-69.87	0.00	0.00	0.00
5,800.00	5.56	253.52	5,778.53	-126.75	-428.34	-71.42	0.00	0.00	0.00
5,900.00	5.56	253.52	5,878.06	-129.50	-437.63	-72.97	0.00	0.00	0.00
6,000.00	5.56	253.52	5,977.59	-132.25	-446.92	-74.52	0.00	0.00	0.00
6,100.00	5.56	253.52	6,077.12	-135.00	-456.21	-76.07	0.00	0.00	0.00
6,200.00	5.56	253.52	6,176.65	-137.74	-465.50	-77.62	0.00	0.00	0.00
6,300.00	5.56	253.52	6,276.18	-140.49	-474.79	-79.16	0.00	0.00	0.00
6,400.00	5.56	253.52	6,375.71	-143.24	-484.08	-80.71	0.00	0.00	0.00
6,500.00	5.56	253.52	6,475.24	-145.99	-493.37	-82.26	0.00	0.00	0.00
6,514.49	5.56	253.52	6,489.66	-146.39	-494.71	-82.49	0.00	0.00	0.00
Start DLS 8.00 TFO 106.11									
6,600.00	7.51	314.57	6,574.70	-143.64	-502.68	-78.75	8.00	2.29	71.40
6,700.00	14.31	338.19	6,672.88	-127.55	-511.94	-61.62	8.00	6.79	23.63
6,800.00	21.92	346.26	6,767.87	-97.90	-520.98	-31.05	8.00	7.61	8.07
6,900.00	29.73	350.27	6,857.82	-55.25	-529.62	12.34	8.00	7.81	4.01
7,000.00	37.62	352.73	6,940.97	-0.44	-537.68	67.73	8.00	7.89	2.45
7,100.00	45.54	354.43	7,015.72	65.46	-545.02	134.03	8.00	7.92	1.70
7,200.00	53.48	355.72	7,080.60	141.17	-551.49	209.95	8.00	7.94	1.29
7,230.09	55.87	356.06	7,098.00	165.65	-553.25	234.46	8.00	7.95	1.12
SHARON SPRINGS									
7,300.00	61.43	356.78	7,134.36	225.22	-556.96	294.01	8.00	7.95	1.02
7,360.44	66.24	357.34	7,161.00	279.37	-559.74	348.08	8.00	7.96	0.93
NIORARA A									
7,365.84	66.67	357.38	7,163.16	284.32	-559.97	353.02	8.00	7.96	0.89
RATTLER 29N-34HZ HEEL									
7,400.00	69.39	357.68	7,175.94	315.97	-561.34	384.59	8.00	7.96	0.87
7,500.00	77.35	358.49	7,204.54	411.65	-564.52	479.90	8.00	7.96	0.81
7,521.86	79.09	358.66	7,209.00	433.05	-565.05	501.19	8.00	7.96	0.78
NIORARA B									
7,600.00	85.31	359.25	7,219.60	510.41	-566.46	578.11	8.00	7.96	0.76
7,659.66	90.07	359.70	7,222.00	570.00	-567.00	637.29	8.00	7.96	0.75
Start DLS 1.00 TFO -65.94 - 7"									
7,660.90	90.07	359.69	7,222.00	571.24	-567.01	638.52	1.00	0.41	-0.92
Start 4036.65 hold at 7660.90 MD									
7,700.00	90.07	359.69	7,221.95	610.34	-567.22	677.33	0.00	0.00	0.00
7,800.00	90.07	359.69	7,221.83	710.34	-567.76	776.59	0.00	0.00	0.00
7,900.00	90.07	359.69	7,221.70	810.34	-568.31	875.85	0.00	0.00	0.00
8,000.00	90.07	359.69	7,221.58	910.34	-568.85	975.11	0.00	0.00	0.00
8,100.00	90.07	359.69	7,221.45	1,010.34	-569.39	1,074.37	0.00	0.00	0.00
8,200.00	90.07	359.69	7,221.33	1,110.34	-569.94	1,173.63	0.00	0.00	0.00
8,300.00	90.07	359.69	7,221.21	1,210.33	-570.48	1,272.89	0.00	0.00	0.00
8,400.00	90.07	359.69	7,221.08	1,310.33	-571.02	1,372.15	0.00	0.00	0.00
8,500.00	90.07	359.69	7,220.96	1,410.33	-571.57	1,471.41	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well RATTLER 29N-34HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	RKB + GL @ 5007.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 5007.00ft
Site:	WELD_RATTLER PAD 1	North Reference:	True
Well:	RATTLER 29N-34HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	RATTLER 29N-34HZ		
Design:	RATTLER 29N-34HZ (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)	
8,600.00	90.07	359.69	7,220.84	1,510.33	-572.11	1,570.67	0.00	0.00	0.00	
8,700.00	90.07	359.69	7,220.71	1,610.33	-572.65	1,669.93	0.00	0.00	0.00	
8,800.00	90.07	359.69	7,220.59	1,710.33	-573.20	1,769.20	0.00	0.00	0.00	
8,900.00	90.07	359.69	7,220.46	1,810.32	-573.74	1,868.46	0.00	0.00	0.00	
9,000.00	90.07	359.69	7,220.34	1,910.32	-574.28	1,967.72	0.00	0.00	0.00	
9,100.00	90.07	359.69	7,220.22	2,010.32	-574.83	2,066.98	0.00	0.00	0.00	
9,200.00	90.07	359.69	7,220.09	2,110.32	-575.37	2,166.24	0.00	0.00	0.00	
9,300.00	90.07	359.69	7,219.97	2,210.32	-575.91	2,265.50	0.00	0.00	0.00	
9,400.00	90.07	359.69	7,219.85	2,310.32	-576.46	2,364.76	0.00	0.00	0.00	
9,500.00	90.07	359.69	7,219.72	2,410.31	-577.00	2,464.02	0.00	0.00	0.00	
9,600.00	90.07	359.69	7,219.60	2,510.31	-577.54	2,563.28	0.00	0.00	0.00	
9,700.00	90.07	359.69	7,219.47	2,610.31	-578.09	2,662.54	0.00	0.00	0.00	
9,800.00	90.07	359.69	7,219.35	2,710.31	-578.63	2,761.80	0.00	0.00	0.00	
9,900.00	90.07	359.69	7,219.23	2,810.31	-579.17	2,861.06	0.00	0.00	0.00	
10,000.00	90.07	359.69	7,219.10	2,910.31	-579.72	2,960.32	0.00	0.00	0.00	
10,100.00	90.07	359.69	7,218.98	3,010.31	-580.26	3,059.58	0.00	0.00	0.00	
10,200.00	90.07	359.69	7,218.85	3,110.30	-580.80	3,158.84	0.00	0.00	0.00	
10,300.00	90.07	359.69	7,218.73	3,210.30	-581.35	3,258.10	0.00	0.00	0.00	
10,400.00	90.07	359.69	7,218.61	3,310.30	-581.89	3,357.36	0.00	0.00	0.00	
10,500.00	90.07	359.69	7,218.48	3,410.30	-582.43	3,456.62	0.00	0.00	0.00	
10,600.00	90.07	359.69	7,218.36	3,510.30	-582.98	3,555.88	0.00	0.00	0.00	
10,700.00	90.07	359.69	7,218.24	3,610.30	-583.52	3,655.14	0.00	0.00	0.00	
10,800.00	90.07	359.69	7,218.11	3,710.29	-584.06	3,754.40	0.00	0.00	0.00	
10,900.00	90.07	359.69	7,217.99	3,810.29	-584.61	3,853.66	0.00	0.00	0.00	
11,000.00	90.07	359.69	7,217.86	3,910.29	-585.15	3,952.92	0.00	0.00	0.00	
11,100.00	90.07	359.69	7,217.74	4,010.29	-585.69	4,052.18	0.00	0.00	0.00	
11,200.00	90.07	359.69	7,217.62	4,110.29	-586.24	4,151.45	0.00	0.00	0.00	
11,300.00	90.07	359.69	7,217.49	4,210.29	-586.78	4,250.71	0.00	0.00	0.00	
11,400.00	90.07	359.69	7,217.37	4,310.29	-587.32	4,349.97	0.00	0.00	0.00	
11,500.00	90.07	359.69	7,217.24	4,410.28	-587.87	4,449.23	0.00	0.00	0.00	
11,600.00	90.07	359.69	7,217.12	4,510.28	-588.41	4,548.49	0.00	0.00	0.00	
11,697.54	90.07	359.69	7,217.00	4,607.82	-588.94	4,645.31	0.00	0.00	0.00	
TD at 11697.54 - RATTLER 29N-34HZ BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
RATTLER 29N-34HZ BHL	0.00	0.00	7,217.00	4,607.82	-588.94	1,312,017.91	3,204,521.16	40.187568	-104.767946	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
900.00	900.00	9 5/8"	9-5/8	12-1/4		
7,659.66	7,222.00	7"	7	8-3/4		

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well RATTLER 29N-34HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	RKB + GL @ 5007.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	RKB + GL @ 5007.00ft
Site:	WELD_RATTLER PAD 1	North Reference:	True
Well:	RATTLER 29N-34HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	RATTLER 29N-34HZ		
Design:	RATTLER 29N-34HZ (wp01)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,655.68	2,649.00	PARKMAN		0.00	
4,723.41	4,707.00	SUSSEX		0.00	
7,230.09	7,098.00	SHARON SPRINGS		0.00	
7,360.44	7,161.00	NIOBRARA A		0.00	
7,521.86	7,209.00	NIOBRARA B		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,050.00	1,050.00	0.00	0.00	Start Build 2.00	
1,327.96	1,327.53	-3.82	-12.92	Start 5186.53 hold at 1327.96 MD	
6,514.49	6,489.66	-146.39	-494.71	Start DLS 8.00 TFO 106.11	
7,659.66	7,222.00	570.00	-567.00	Start DLS 1.00 TFO -65.94	
7,660.90	7,222.00	571.24	-567.01	Start 4036.65 hold at 7660.90 MD	
11,697.54	7,217.00	4,607.82	-588.94	TD at 11697.54	