

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_USA Fed 16-36HZ PAD**

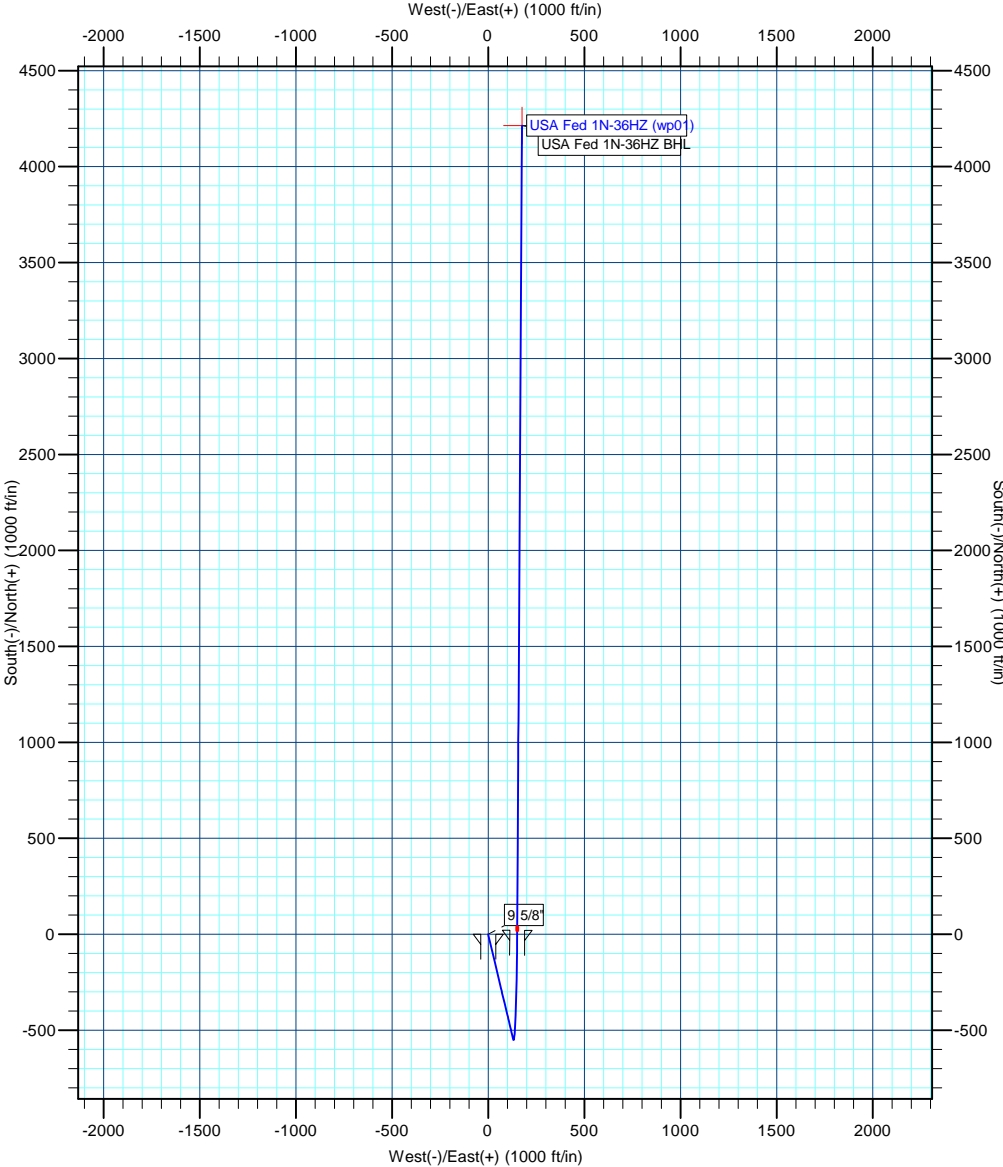
**USA Fed 1N-36HZ**

**USA Fed 1N-36HZ**

**Plan: USA Fed 1N-36HZ (wp01)**

## **Standard Planning Report**

**29 March, 2012**



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Azimuths to True North

Magnetic North: 8.71°

Magnetic Field

Strength: 52934.4snT

Dip Angle: 66.85°

Date: 3/29/2012

Model: IGRF2010



Project: COLORADO NORTHERN ZONE - 83

Site: WELD\_USA Fed 16-36HZ PAD

Well: USA Fed 1N-36HZ

Wellbore: USA Fed 1N-36HZ

Section:

SHL:

Design: USA Fed 1N-36HZ (wp01)

Latitude: 40.176343

Longitude: -104.718272

GL: 4985.00

KB: rkb + gl @ 5002.00ft

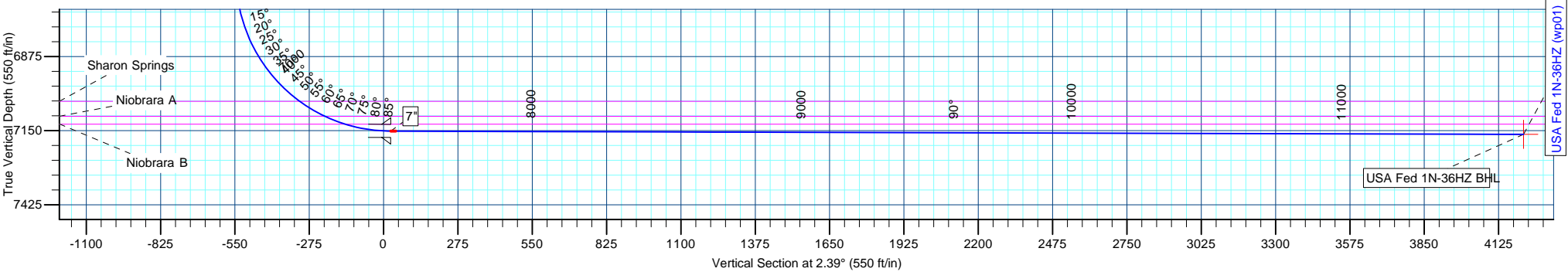
WELL DETAILS: USA Fed 1N-36HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4985.00 Latitude	Longitude	Slot
0.00	0.00	1308047.45	3218434.78	40.176343	-104.718272	

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
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00
1831.03	6.62	166.63	1830.30	-18.59	4.42	2.00	166.63	-18.39
6547.29	6.62	166.63	6515.11	-547.61	130.16	0.00	0.00	-541.70
7509.98	89.84	0.34	7152.00	20.00	151.00	10.00	-166.21	26.28
7528.00	89.84	0.34	7152.05	38.03	151.11	0.01	115.63	44.30
11703.74	89.84	0.34	7164.00	4213.67	176.01	0.00	0.00	4217.35

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
USA Fed 1N-36HZ BHL	7164.00	4213.67	176.01	40.187910	-104.717642	Point

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3444.00	3455.57	Parkman
4386.00	4403.89	Sussex
7041.00	7148.86	Sharon Springs
7097.00	7258.45	Niobrara A
7126.00	7338.30	Niobrara B

CASING DETAILS			
TVD	MD	Name	Size
800.00	800.00	9 5/8"	9-5/8
7152.00	7509.98	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well USA Fed 1N-36HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 5002.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 5002.00ft
<b>Site:</b>	WELD_USA Fed 16-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 1N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 1N-36HZ		
<b>Design:</b>	USA Fed 1N-36HZ (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_USA Fed 16-36HZ PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,308,038.47 usft	<b>Latitude:</b> 40.176319
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,218,406.36 usft	<b>Longitude:</b> -104.718374
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.51 °

<b>Well</b>	USA Fed 1N-36HZ			
<b>Well Position</b>	<b>+N/-S</b>	8.73 ft	<b>Northing:</b>	1,308,047.45 usft
	<b>+E/-W</b>	28.50 ft	<b>Easting:</b>	3,218,434.78 usft
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b> 4,985.00 ft

<b>Wellbore</b>	USA Fed 1N-36HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/29/2012	8.71	66.85	52,934

<b>Design</b>	USA Fed 1N-36HZ (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	2.39

<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	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,831.03	6.62	166.63	1,830.30	-18.59	4.42	2.00	2.00	0.00	166.63	
6,547.29	6.62	166.63	6,515.11	-547.61	130.16	0.00	0.00	0.00	0.00	
7,509.98	89.84	0.34	7,152.00	20.00	151.00	10.00	8.64	-17.27	-166.21	
7,528.00	89.84	0.34	7,152.05	38.03	151.11	0.01	0.00	0.01	115.63	
11,703.74	89.84	0.34	7,164.00	4,213.67	176.01	0.00	0.00	0.00	0.00	USA Fed 1N-36HZ Bt

# Anadarko Petroleum Corp

## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 5002.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 5002.00ft
<b>Site:</b>	WELD_USA Fed 16-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 1N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 1N-36HZ		
<b>Design:</b>	USA Fed 1N-36HZ (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
9 5/8"									
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
Start Build 2.00									
1,600.00	2.00	166.63	1,599.98	-1.70	0.40	-1.68	2.00	2.00	0.00
1,700.00	4.00	166.63	1,699.84	-6.79	1.61	-6.72	2.00	2.00	0.00
1,800.00	6.00	166.63	1,799.45	-15.27	3.63	-15.10	2.00	2.00	0.00
1,831.03	6.62	166.63	1,830.30	-18.59	4.42	-18.39	2.00	2.00	0.00
Start 4716.26 hold at 1831.03 MD									
1,900.00	6.62	166.63	1,898.80	-26.32	6.26	-26.04	0.00	0.00	0.00
2,000.00	6.62	166.63	1,998.14	-37.54	8.92	-37.13	0.00	0.00	0.00
2,100.00	6.62	166.63	2,097.47	-48.76	11.59	-48.23	0.00	0.00	0.00
2,200.00	6.62	166.63	2,196.80	-59.97	14.25	-59.33	0.00	0.00	0.00
2,300.00	6.62	166.63	2,296.14	-71.19	16.92	-70.42	0.00	0.00	0.00
2,400.00	6.62	166.63	2,395.47	-82.41	19.59	-81.52	0.00	0.00	0.00
2,500.00	6.62	166.63	2,494.80	-93.62	22.25	-92.61	0.00	0.00	0.00
2,600.00	6.62	166.63	2,594.14	-104.84	24.92	-103.71	0.00	0.00	0.00
2,700.00	6.62	166.63	2,693.47	-116.06	27.59	-114.81	0.00	0.00	0.00
2,800.00	6.62	166.63	2,792.80	-127.28	30.25	-125.90	0.00	0.00	0.00
2,900.00	6.62	166.63	2,892.14	-138.49	32.92	-137.00	0.00	0.00	0.00
3,000.00	6.62	166.63	2,991.47	-149.71	35.58	-148.09	0.00	0.00	0.00
3,100.00	6.62	166.63	3,090.80	-160.93	38.25	-159.19	0.00	0.00	0.00
3,200.00	6.62	166.63	3,190.13	-172.14	40.92	-170.29	0.00	0.00	0.00
3,300.00	6.62	166.63	3,289.47	-183.36	43.58	-181.38	0.00	0.00	0.00
3,400.00	6.62	166.63	3,388.80	-194.58	46.25	-192.48	0.00	0.00	0.00
3,455.57	6.62	166.63	3,444.00	-200.81	47.73	-198.64	0.00	0.00	0.00
Parkman									
3,500.00	6.62	166.63	3,488.13	-205.79	48.91	-203.57	0.00	0.00	0.00
3,600.00	6.62	166.63	3,587.47	-217.01	51.58	-214.67	0.00	0.00	0.00
3,700.00	6.62	166.63	3,686.80	-228.23	54.25	-225.77	0.00	0.00	0.00
3,800.00	6.62	166.63	3,786.13	-239.45	56.91	-236.86	0.00	0.00	0.00
3,900.00	6.62	166.63	3,885.47	-250.66	59.58	-247.96	0.00	0.00	0.00
4,000.00	6.62	166.63	3,984.80	-261.88	62.25	-259.05	0.00	0.00	0.00
4,100.00	6.62	166.63	4,084.13	-273.10	64.91	-270.15	0.00	0.00	0.00
4,200.00	6.62	166.63	4,183.47	-284.31	67.58	-281.25	0.00	0.00	0.00
4,300.00	6.62	166.63	4,282.80	-295.53	70.24	-292.34	0.00	0.00	0.00
4,400.00	6.62	166.63	4,382.13	-306.75	72.91	-303.44	0.00	0.00	0.00
4,403.89	6.62	166.63	4,386.00	-307.18	73.01	-303.87	0.00	0.00	0.00
Sussex									
4,500.00	6.62	166.63	4,481.47	-317.96	75.58	-314.53	0.00	0.00	0.00

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## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 5002.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 5002.00ft
<b>Site:</b>	WELD_USA Fed 16-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 1N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 1N-36HZ		
<b>Design:</b>	USA Fed 1N-36HZ (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)
4,600.00	6.62	166.63	4,580.80	-329.18	78.24	-325.63	0.00	0.00	0.00
4,700.00	6.62	166.63	4,680.13	-340.40	80.91	-336.72	0.00	0.00	0.00
4,800.00	6.62	166.63	4,779.46	-351.62	83.57	-347.82	0.00	0.00	0.00
4,900.00	6.62	166.63	4,878.80	-362.83	86.24	-358.92	0.00	0.00	0.00
5,000.00	6.62	166.63	4,978.13	-374.05	88.91	-370.01	0.00	0.00	0.00
5,100.00	6.62	166.63	5,077.46	-385.27	91.57	-381.11	0.00	0.00	0.00
5,200.00	6.62	166.63	5,176.80	-396.48	94.24	-392.20	0.00	0.00	0.00
5,300.00	6.62	166.63	5,276.13	-407.70	96.91	-403.30	0.00	0.00	0.00
5,400.00	6.62	166.63	5,375.46	-418.92	99.57	-414.40	0.00	0.00	0.00
5,500.00	6.62	166.63	5,474.80	-430.13	102.24	-425.49	0.00	0.00	0.00
5,600.00	6.62	166.63	5,574.13	-441.35	104.90	-436.59	0.00	0.00	0.00
5,700.00	6.62	166.63	5,673.46	-452.57	107.57	-447.68	0.00	0.00	0.00
5,800.00	6.62	166.63	5,772.80	-463.78	110.24	-458.78	0.00	0.00	0.00
5,900.00	6.62	166.63	5,872.13	-475.00	112.90	-469.88	0.00	0.00	0.00
6,000.00	6.62	166.63	5,971.46	-486.22	115.57	-480.97	0.00	0.00	0.00
6,100.00	6.62	166.63	6,070.80	-497.44	118.23	-492.07	0.00	0.00	0.00
6,200.00	6.62	166.63	6,170.13	-508.65	120.90	-503.16	0.00	0.00	0.00
6,300.00	6.62	166.63	6,269.46	-519.87	123.57	-514.26	0.00	0.00	0.00
6,400.00	6.62	166.63	6,368.79	-531.09	126.23	-525.36	0.00	0.00	0.00
6,500.00	6.62	166.63	6,468.13	-542.30	128.90	-536.45	0.00	0.00	0.00
6,547.29	6.62	166.63	6,515.11	-547.61	130.16	-541.70	0.00	0.00	0.00
Start DLS 10.00 TFO -166.21									
6,600.00	1.96	126.72	6,567.66	-551.11	131.58	-545.13	10.00	-8.85	-75.71
6,700.00	8.98	10.36	6,667.27	-544.43	134.36	-538.35	10.00	7.02	-116.36
6,800.00	18.90	4.94	6,764.21	-520.56	137.17	-514.38	10.00	9.93	-5.42
6,900.00	28.88	3.19	6,855.52	-480.21	139.92	-473.95	10.00	9.98	-1.75
7,000.00	38.87	2.29	6,938.45	-424.61	142.52	-418.29	10.00	9.99	-0.90
7,100.00	48.86	1.71	7,010.46	-355.45	144.91	-349.09	10.00	9.99	-0.58
7,148.86	53.74	1.49	7,041.00	-317.34	145.97	-310.97	10.00	9.99	-0.45
Sharon Springs									
7,200.00	58.85	1.29	7,069.37	-274.82	147.00	-268.45	10.00	9.99	-0.40
7,258.45	64.69	1.08	7,097.00	-223.35	148.06	-216.98	10.00	10.00	-0.35
Niobrara A									
7,300.00	68.85	0.95	7,113.38	-185.19	148.74	-178.82	10.00	10.00	-0.33
7,338.30	72.68	0.83	7,126.00	-149.04	149.29	-142.68	10.00	10.00	-0.31
Niobrara B									
7,400.00	78.84	0.65	7,141.17	-89.27	150.06	-82.93	10.00	10.00	-0.29
7,500.00	88.84	0.37	7,151.88	10.02	150.94	16.32	10.00	10.00	-0.28
7,509.98	89.84	0.34	7,152.00	20.00	151.00	26.29	10.00	9.99	-0.27
Start DLS 0.01 TFO 115.63 - 7"									
7,528.00	89.84	0.34	7,152.05	38.03	151.11	44.30	0.01	0.00	0.01
Start 4175.74 hold at 7528.00 MD									
7,600.00	89.84	0.34	7,152.26	110.02	151.54	116.25	0.00	0.00	0.00
7,700.00	89.84	0.34	7,152.54	210.02	152.13	216.19	0.00	0.00	0.00
7,800.00	89.84	0.34	7,152.83	310.02	152.73	316.12	0.00	0.00	0.00
7,900.00	89.84	0.34	7,153.12	410.02	153.33	416.06	0.00	0.00	0.00
8,000.00	89.84	0.34	7,153.40	510.01	153.92	515.99	0.00	0.00	0.00
8,100.00	89.84	0.34	7,153.69	610.01	154.52	615.93	0.00	0.00	0.00
8,200.00	89.84	0.34	7,153.97	710.01	155.11	715.86	0.00	0.00	0.00
8,300.00	89.84	0.34	7,154.26	810.01	155.71	815.80	0.00	0.00	0.00
8,400.00	89.84	0.34	7,154.55	910.00	156.31	915.74	0.00	0.00	0.00
8,500.00	89.84	0.34	7,154.83	1,010.00	156.90	1,015.67	0.00	0.00	0.00
8,600.00	89.84	0.34	7,155.12	1,110.00	157.50	1,115.61	0.00	0.00	0.00

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## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 5002.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 5002.00ft
<b>Site:</b>	WELD_USA Fed 16-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 1N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 1N-36HZ		
<b>Design:</b>	USA Fed 1N-36HZ (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)
8,700.00	89.84	0.34	7,155.41	1,210.00	158.10	1,215.54	0.00	0.00	0.00
8,800.00	89.84	0.34	7,155.69	1,310.00	158.69	1,315.48	0.00	0.00	0.00
8,900.00	89.84	0.34	7,155.98	1,409.99	159.29	1,415.41	0.00	0.00	0.00
9,000.00	89.84	0.34	7,156.26	1,509.99	159.89	1,515.35	0.00	0.00	0.00
9,100.00	89.84	0.34	7,156.55	1,609.99	160.48	1,615.28	0.00	0.00	0.00
9,200.00	89.84	0.34	7,156.84	1,709.99	161.08	1,715.22	0.00	0.00	0.00
9,300.00	89.84	0.34	7,157.12	1,809.98	161.68	1,815.16	0.00	0.00	0.00
9,400.00	89.84	0.34	7,157.41	1,909.98	162.27	1,915.09	0.00	0.00	0.00
9,500.00	89.84	0.34	7,157.69	2,009.98	162.87	2,015.03	0.00	0.00	0.00
9,600.00	89.84	0.34	7,157.98	2,109.98	163.46	2,114.96	0.00	0.00	0.00
9,700.00	89.84	0.34	7,158.27	2,209.98	164.06	2,214.90	0.00	0.00	0.00
9,800.00	89.84	0.34	7,158.55	2,309.97	164.66	2,314.83	0.00	0.00	0.00
9,900.00	89.84	0.34	7,158.84	2,409.97	165.25	2,414.77	0.00	0.00	0.00
10,000.00	89.84	0.34	7,159.13	2,509.97	165.85	2,514.70	0.00	0.00	0.00
10,100.00	89.84	0.34	7,159.41	2,609.97	166.45	2,614.64	0.00	0.00	0.00
10,200.00	89.84	0.34	7,159.70	2,709.97	167.04	2,714.58	0.00	0.00	0.00
10,300.00	89.84	0.34	7,159.98	2,809.96	167.64	2,814.51	0.00	0.00	0.00
10,400.00	89.84	0.34	7,160.27	2,909.96	168.24	2,914.45	0.00	0.00	0.00
10,500.00	89.84	0.34	7,160.56	3,009.96	168.83	3,014.38	0.00	0.00	0.00
10,600.00	89.84	0.34	7,160.84	3,109.96	169.43	3,114.32	0.00	0.00	0.00
10,700.00	89.84	0.34	7,161.13	3,209.95	170.02	3,214.25	0.00	0.00	0.00
10,800.00	89.84	0.34	7,161.41	3,309.95	170.62	3,314.19	0.00	0.00	0.00
10,900.00	89.84	0.34	7,161.70	3,409.95	171.22	3,414.12	0.00	0.00	0.00
11,000.00	89.84	0.34	7,161.99	3,509.95	171.81	3,514.06	0.00	0.00	0.00
11,100.00	89.84	0.34	7,162.27	3,609.95	172.41	3,614.00	0.00	0.00	0.00
11,200.00	89.84	0.34	7,162.56	3,709.94	173.01	3,713.93	0.00	0.00	0.00
11,300.00	89.84	0.34	7,162.84	3,809.94	173.60	3,813.87	0.00	0.00	0.00
11,400.00	89.84	0.34	7,163.13	3,909.94	174.20	3,913.80	0.00	0.00	0.00
11,500.00	89.84	0.34	7,163.42	4,009.94	174.80	4,013.74	0.00	0.00	0.00
11,600.00	89.84	0.34	7,163.70	4,109.93	175.39	4,113.67	0.00	0.00	0.00
11,700.00	89.84	0.34	7,163.99	4,209.93	175.99	4,213.61	0.00	0.00	0.00
11,703.74	89.84	0.34	7,164.00	4,213.67	176.01	4,217.35	0.00	0.00	0.00
TD at 11703.74 - USA Fed 1N-36HZ BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
USA Fed 1N-36HZ BHL	0.00	0.00	7,164.00	4,213.67	176.01	1,312,262.50	3,218,573.64	40.187910	-104.717642
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
800.00	800.00	9 5/8"	9-5/8	12-1/4	
7,509.98	7,152.00	7"	7	8-3/4	

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well USA Fed 1N-36HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	rkb + gl @ 5002.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	rkb + gl @ 5002.00ft
<b>Site:</b>	WELD_USA Fed 16-36HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 1N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 1N-36HZ		
<b>Design:</b>	USA Fed 1N-36HZ (wp01)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,455.57	3,444.00	Parkman				
4,403.89	4,386.00	Sussex				
7,148.86	7,041.00	Sharon Springs				
7,258.45	7,097.00	Niobrara A				
7,338.30	7,126.00	Niobrara B				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,500.00	1,500.00	0.00	0.00	Start Build 2.00	
1,831.03	1,830.30	-18.59	4.42	Start 4716.26 hold at 1831.03 MD	
6,547.29	6,515.11	-547.61	130.16	Start DLS 10.00 TFO -166.21	
7,509.98	7,152.00	20.00	151.00	Start DLS 0.01 TFO 115.63	
7,528.00	7,152.05	38.03	151.11	Start 4175.74 hold at 7528.00 MD	
11,703.74	7,164.00	4,213.67	176.01	TD at 11703.74	