

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_CAMP 35-31HZ PAD**

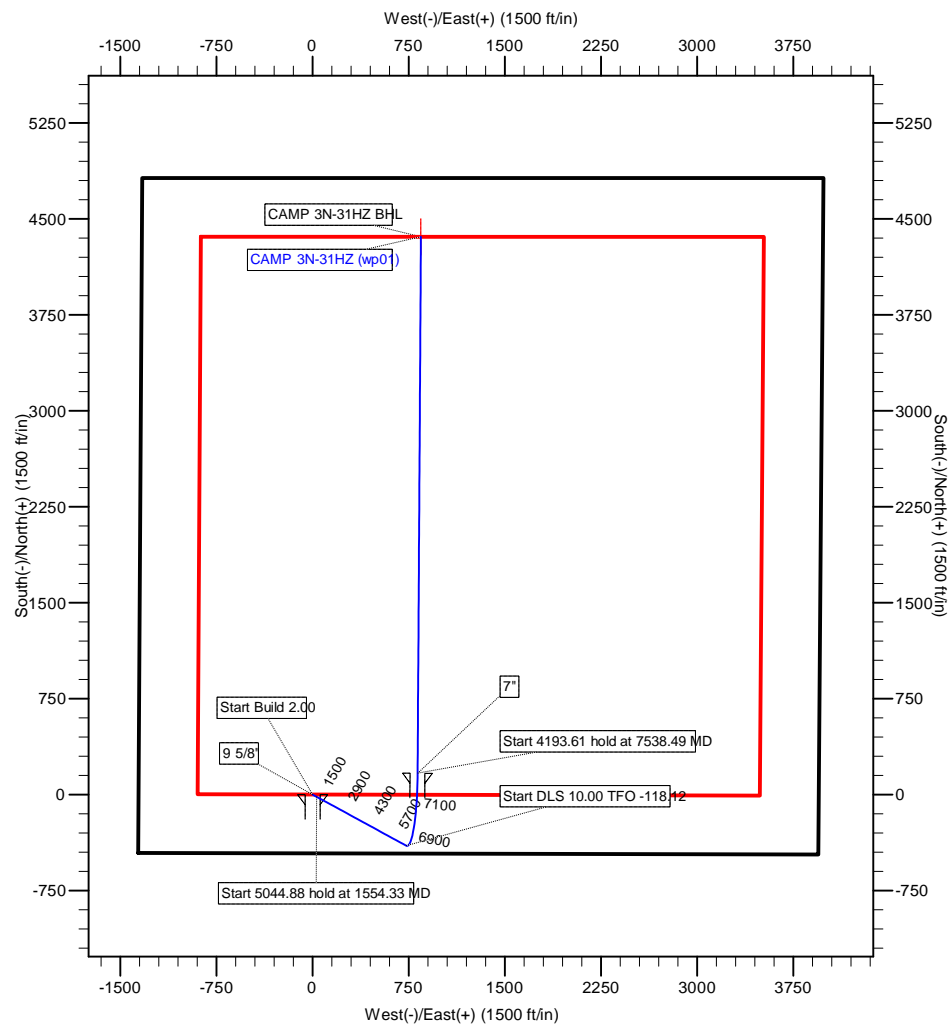
**CAMP 3N-31HZ**

**CAMP 3N-31HZ**

**Plan: CAMP 3N-31HZ (wp01)**

## **Standard Planning Report**

**04 January, 2012**



**Azimuths to True North**  
Magnetic North: 8.74°

**Magnetic Field**  
Strength: 52959.5nT  
Dip Angle: 66.86°  
Date: 1/4/2012  
Model: IGRF2010



**Project:** COLORADO NORTHERN ZONE - 83  
**Site:** WELD\_CAMP 35-31HZ PAD  
**Well:** CAMP 3N-31HZ  
**Wellbore:** CAMP 3N-31HZ  
**Section:**  
**SHL:**  
**Design:** CAMP 3N-31HZ (wp01)  
**Latitude:** 40.175961  
**Longitude:** -104.710980  
**GL:** 4971.00  
**KB:** WELL @ 4996.00ft (Original Well Elev)

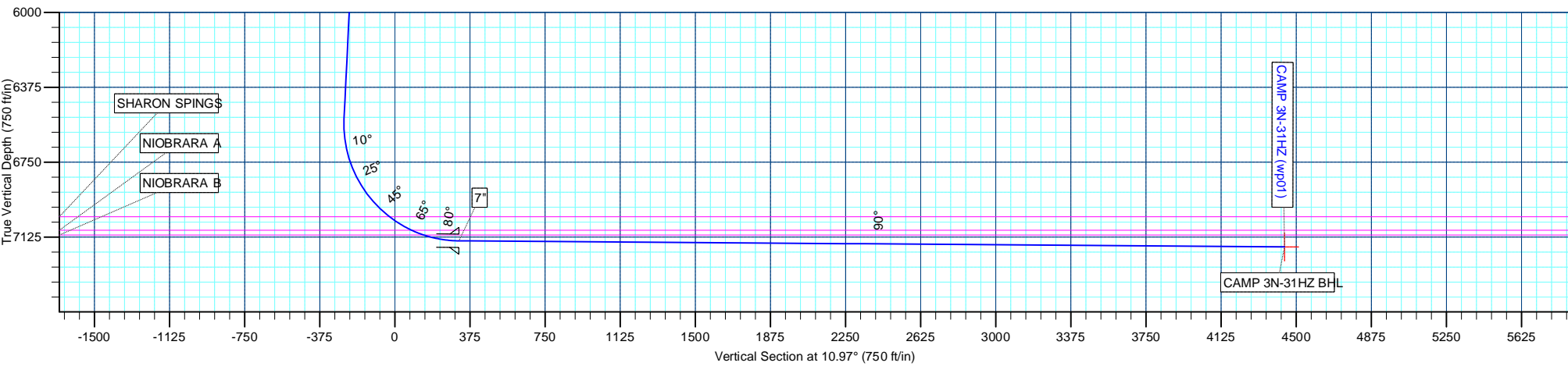
WELL DETAILS: CAMP 3N-31HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4971.00 Latitude	Longitude	Slot
0.00	0.00	1307926.34	3220473.53	40.175961	-104.710980	

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
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1554.33	9.09	118.71	1552.43	-17.27	31.53	2.00	118.71	-10.96
6599.21	9.09	118.71	6534.00	-400.00	730.30	0.00	0.00	-253.79
7538.17	89.59	0.35	7144.00	166.75	819.00	10.00	-118.12	319.49
7538.49	89.59	0.35	7144.00	167.07	819.00	1.00	87.33	319.80
11732.10	89.59	0.35	7174.00	4360.49	844.85	0.00	0.00	4441.58

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
CAMP 3N-31HZ BHL	7174.00	4360.49	844.85	40.187931	-104.707956	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3995.00	4027.94	PARKMAN
4411.00	4449.23	SUSSEX
7023.00	7161.11	SHARON SPINGS
7091.00	7292.66	NIOBRARA A
7115.00	7358.29	NIOBRARA B

CASING DETAILS			
TVD	MD	Name	Size
800.00	800.00	9 5/8"	9-5/8
7144.00	7538.17	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well CAMP 3N-31HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Site:</b>	WELD_CAMP 35-31HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	CAMP 3N-31HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CAMP 3N-31HZ		
<b>Design:</b>	CAMP 3N-31HZ (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_CAMP 35-31HZ PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,307,925.69 usft	<b>Latitude:</b> 40.175961
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,220,398.65 usft	<b>Longitude:</b> -104.711248
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.51 °

<b>Well</b>	CAMP 3N-31HZ			
<b>Well Position</b>	<b>+N/-S</b>	-0.01 ft	<b>Northing:</b>	1,307,926.34 usft
	<b>+E/-W</b>	74.89 ft	<b>Easting:</b>	3,220,473.54 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 4,971.00 ft

<b>Wellbore</b>	CAMP 3N-31HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	1/4/2012	8.74	66.86	52,960

<b>Design</b>	CAMP 3N-31HZ (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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	10.97

<b>Plan Sections</b>										
<b>Measured Depth</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical Depth</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Dogleg Rate</b>	<b>Build Rate</b>	<b>Turn Rate</b>	<b>TFO</b>	<b>Target</b>
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.00	0.00	0.00	0.00	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	
1,554.33	9.09	118.71	1,552.43	-17.27	31.53	2.00	2.00	0.00	118.71	
6,599.21	9.09	118.71	6,534.00	-400.00	730.30	0.00	0.00	0.00	0.00	
7,538.17	89.59	0.35	7,144.00	166.75	819.00	10.00	8.57	-12.61	-118.12	
7,538.49	89.59	0.35	7,144.00	167.07	819.00	1.00	0.05	1.00	87.33	
11,732.10	89.59	0.35	7,174.00	4,360.49	844.85	0.00	0.00	0.00	0.00	CAMP 3N-31HZ BHL

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well CAMP 3N-31HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Site:</b>	WELD_CAMP 35-31HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	CAMP 3N-31HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CAMP 3N-31HZ		
<b>Design:</b>	CAMP 3N-31HZ (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
Start Build 2.00									
1,200.00	2.00	118.71	1,199.98	-0.84	1.53	-0.53	2.00	2.00	0.00
1,300.00	4.00	118.71	1,299.84	-3.35	6.12	-2.13	2.00	2.00	0.00
1,400.00	6.00	118.71	1,399.45	-7.54	13.76	-4.78	2.00	2.00	0.00
1,500.00	8.00	118.71	1,498.70	-13.39	24.45	-8.50	2.00	2.00	0.00
1,554.33	9.09	118.71	1,552.43	-17.27	31.53	-10.96	2.00	2.00	0.00
Start 5044.88 hold at 1554.33 MD									
1,600.00	9.09	118.71	1,597.52	-20.73	37.86	-13.16	0.00	0.00	0.00
1,700.00	9.09	118.71	1,696.27	-28.32	51.71	-17.97	0.00	0.00	0.00
1,800.00	9.09	118.71	1,795.01	-35.91	65.56	-22.78	0.00	0.00	0.00
1,900.00	9.09	118.71	1,893.76	-43.49	79.41	-27.60	0.00	0.00	0.00
2,000.00	9.09	118.71	1,992.51	-51.08	93.26	-32.41	0.00	0.00	0.00
2,100.00	9.09	118.71	2,091.25	-58.67	107.11	-37.22	0.00	0.00	0.00
2,200.00	9.09	118.71	2,190.00	-66.25	120.96	-42.04	0.00	0.00	0.00
2,300.00	9.09	118.71	2,288.74	-73.84	134.81	-46.85	0.00	0.00	0.00
2,400.00	9.09	118.71	2,387.49	-81.43	148.67	-51.66	0.00	0.00	0.00
2,500.00	9.09	118.71	2,486.23	-89.01	162.52	-56.48	0.00	0.00	0.00
2,600.00	9.09	118.71	2,584.98	-96.60	176.37	-61.29	0.00	0.00	0.00
2,700.00	9.09	118.71	2,683.72	-104.19	190.22	-66.10	0.00	0.00	0.00
2,800.00	9.09	118.71	2,782.47	-111.77	204.07	-70.92	0.00	0.00	0.00
2,900.00	9.09	118.71	2,881.21	-119.36	217.92	-75.73	0.00	0.00	0.00
3,000.00	9.09	118.71	2,979.96	-126.95	231.77	-80.54	0.00	0.00	0.00
3,100.00	9.09	118.71	3,078.70	-134.53	245.62	-85.36	0.00	0.00	0.00
3,200.00	9.09	118.71	3,177.45	-142.12	259.47	-90.17	0.00	0.00	0.00
3,300.00	9.09	118.71	3,276.19	-149.71	273.33	-94.98	0.00	0.00	0.00
3,400.00	9.09	118.71	3,374.94	-157.29	287.18	-99.80	0.00	0.00	0.00
3,500.00	9.09	118.71	3,473.68	-164.88	301.03	-104.61	0.00	0.00	0.00
3,600.00	9.09	118.71	3,572.43	-172.47	314.88	-109.42	0.00	0.00	0.00
3,700.00	9.09	118.71	3,671.17	-180.05	328.73	-114.24	0.00	0.00	0.00
3,800.00	9.09	118.71	3,769.92	-187.64	342.58	-119.05	0.00	0.00	0.00
3,900.00	9.09	118.71	3,868.66	-195.23	356.43	-123.86	0.00	0.00	0.00
4,000.00	9.09	118.71	3,967.41	-202.81	370.28	-128.68	0.00	0.00	0.00
4,027.94	9.09	118.71	3,995.00	-204.93	374.15	-130.02	0.00	0.00	0.00
PARKMAN									
4,100.00	9.09	118.71	4,066.15	-210.40	384.13	-133.49	0.00	0.00	0.00
4,200.00	9.09	118.71	4,164.90	-217.99	397.99	-138.30	0.00	0.00	0.00
4,300.00	9.09	118.71	4,263.64	-225.57	411.84	-143.12	0.00	0.00	0.00
4,400.00	9.09	118.71	4,362.39	-233.16	425.69	-147.93	0.00	0.00	0.00
4,449.23	9.09	118.71	4,411.00	-236.89	432.51	-150.30	0.00	0.00	0.00
SUSSEX									
4,500.00	9.09	118.71	4,461.13	-240.75	439.54	-152.74	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>	WELL @ 4996.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Site:</b>	WELD_CAMP 35-31HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	CAMP 3N-31HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CAMP 3N-31HZ		
<b>Design:</b>	CAMP 3N-31HZ (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	9.09	118.71	4,559.88	-248.33	453.39	-157.56	0.00	0.00	0.00
4,700.00	9.09	118.71	4,658.62	-255.92	467.24	-162.37	0.00	0.00	0.00
4,800.00	9.09	118.71	4,757.37	-263.50	481.09	-167.18	0.00	0.00	0.00
4,900.00	9.09	118.71	4,856.11	-271.09	494.94	-172.00	0.00	0.00	0.00
5,000.00	9.09	118.71	4,954.86	-278.68	508.79	-176.81	0.00	0.00	0.00
5,100.00	9.09	118.71	5,053.60	-286.26	522.65	-181.62	0.00	0.00	0.00
5,200.00	9.09	118.71	5,152.35	-293.85	536.50	-186.44	0.00	0.00	0.00
5,300.00	9.09	118.71	5,251.09	-301.44	550.35	-191.25	0.00	0.00	0.00
5,400.00	9.09	118.71	5,349.84	-309.02	564.20	-196.06	0.00	0.00	0.00
5,500.00	9.09	118.71	5,448.58	-316.61	578.05	-200.88	0.00	0.00	0.00
5,600.00	9.09	118.71	5,547.33	-324.20	591.90	-205.69	0.00	0.00	0.00
5,700.00	9.09	118.71	5,646.07	-331.78	605.75	-210.50	0.00	0.00	0.00
5,800.00	9.09	118.71	5,744.82	-339.37	619.60	-215.32	0.00	0.00	0.00
5,900.00	9.09	118.71	5,843.56	-346.96	633.46	-220.13	0.00	0.00	0.00
6,000.00	9.09	118.71	5,942.31	-354.54	647.31	-224.94	0.00	0.00	0.00
6,100.00	9.09	118.71	6,041.05	-362.13	661.16	-229.76	0.00	0.00	0.00
6,200.00	9.09	118.71	6,139.80	-369.72	675.01	-234.57	0.00	0.00	0.00
6,300.00	9.09	118.71	6,238.54	-377.30	688.86	-239.38	0.00	0.00	0.00
6,400.00	9.09	118.71	6,337.29	-384.89	702.71	-244.20	0.00	0.00	0.00
6,500.00	9.09	118.71	6,436.03	-392.48	716.56	-249.01	0.00	0.00	0.00
6,599.21	9.09	118.71	6,534.00	-400.00	730.30	-253.79	0.00	0.00	0.00
Start DLS 10.00 TFO -118.12									
6,600.00	9.05	118.27	6,534.78	-400.06	730.41	-253.82	10.00	-4.68	-56.07
6,700.00	9.86	54.34	6,633.67	-398.79	744.33	-249.93	10.00	0.81	-63.93
6,800.00	17.64	26.55	6,730.83	-380.20	758.09	-229.06	10.00	7.78	-27.79
6,900.00	26.90	16.39	6,823.30	-344.85	771.28	-191.85	10.00	9.26	-10.16
7,000.00	36.54	11.24	6,908.28	-293.82	783.49	-139.43	10.00	9.63	-5.15
7,100.00	46.31	8.01	6,983.18	-228.66	794.36	-73.39	10.00	9.77	-3.22
7,161.11	52.32	6.53	7,023.00	-182.72	800.20	-27.17	10.00	9.83	-2.43
SHARON SPINGS									
7,200.00	56.15	5.71	7,045.73	-151.35	803.55	4.26	10.00	9.85	-2.12
7,292.66	65.29	4.00	7,091.00	-70.90	810.33	84.53	10.00	9.87	-1.84
NIOBRARA A									
7,300.00	66.02	3.88	7,094.03	-64.23	810.79	91.17	10.00	9.88	-1.68
7,358.29	71.78	2.95	7,115.00	-9.97	814.02	145.05	10.00	9.89	-1.60
NIOBRARA B									
7,400.00	75.91	2.32	7,126.60	30.05	815.86	184.69	10.00	9.89	-1.51
7,500.00	85.81	0.88	7,142.47	128.62	818.59	281.97	10.00	9.90	-1.43
7,538.17	89.59	0.35	7,144.00	166.75	819.00	319.49	10.00	9.90	-1.40
7"									
7,538.49	89.59	0.35	7,144.00	167.07	819.00	319.80	0.98	0.19	0.97
Start 4193.61 hold at 7538.49 MD									
7,600.00	89.59	0.35	7,144.44	228.57	819.38	380.26	0.00	0.00	0.00
7,700.00	89.59	0.35	7,145.16	328.57	820.00	478.54	0.00	0.00	0.00
7,800.00	89.59	0.35	7,145.87	428.56	820.61	576.83	0.00	0.00	0.00
7,900.00	89.59	0.35	7,146.59	528.56	821.23	675.12	0.00	0.00	0.00
8,000.00	89.59	0.35	7,147.30	628.55	821.85	773.41	0.00	0.00	0.00
8,100.00	89.59	0.35	7,148.02	728.55	822.46	871.69	0.00	0.00	0.00
8,200.00	89.59	0.35	7,148.73	828.55	823.08	969.98	0.00	0.00	0.00
8,300.00	89.59	0.35	7,149.45	928.54	823.70	1,068.27	0.00	0.00	0.00
8,400.00	89.59	0.35	7,150.16	1,028.54	824.31	1,166.55	0.00	0.00	0.00
8,500.00	89.59	0.35	7,150.88	1,128.53	824.93	1,264.84	0.00	0.00	0.00
8,600.00	89.59	0.35	7,151.60	1,228.53	825.55	1,363.13	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well CAMP 3N-31HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Site:</b>	WELD_CAMP 35-31HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	CAMP 3N-31HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CAMP 3N-31HZ		
<b>Design:</b>	CAMP 3N-31HZ (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	89.59	0.35	7,152.31	1,328.52	826.16	1,461.42	0.00	0.00	0.00
8,800.00	89.59	0.35	7,153.03	1,428.52	826.78	1,559.70	0.00	0.00	0.00
8,900.00	89.59	0.35	7,153.74	1,528.51	827.39	1,657.99	0.00	0.00	0.00
9,000.00	89.59	0.35	7,154.46	1,628.51	828.01	1,756.28	0.00	0.00	0.00
9,100.00	89.59	0.35	7,155.17	1,728.51	828.63	1,854.56	0.00	0.00	0.00
9,200.00	89.59	0.35	7,155.89	1,828.50	829.24	1,952.85	0.00	0.00	0.00
9,300.00	89.59	0.35	7,156.60	1,928.50	829.86	2,051.14	0.00	0.00	0.00
9,400.00	89.59	0.35	7,157.32	2,028.49	830.48	2,149.43	0.00	0.00	0.00
9,500.00	89.59	0.35	7,158.03	2,128.49	831.09	2,247.71	0.00	0.00	0.00
9,600.00	89.59	0.35	7,158.75	2,228.48	831.71	2,346.00	0.00	0.00	0.00
9,700.00	89.59	0.35	7,159.46	2,328.48	832.33	2,444.29	0.00	0.00	0.00
9,800.00	89.59	0.35	7,160.18	2,428.47	832.94	2,542.57	0.00	0.00	0.00
9,900.00	89.59	0.35	7,160.89	2,528.47	833.56	2,640.86	0.00	0.00	0.00
10,000.00	89.59	0.35	7,161.61	2,628.47	834.17	2,739.15	0.00	0.00	0.00
10,100.00	89.59	0.35	7,162.33	2,728.46	834.79	2,837.44	0.00	0.00	0.00
10,200.00	89.59	0.35	7,163.04	2,828.46	835.41	2,935.72	0.00	0.00	0.00
10,300.00	89.59	0.35	7,163.76	2,928.45	836.02	3,034.01	0.00	0.00	0.00
10,400.00	89.59	0.35	7,164.47	3,028.45	836.64	3,132.30	0.00	0.00	0.00
10,500.00	89.59	0.35	7,165.19	3,128.44	837.26	3,230.58	0.00	0.00	0.00
10,600.00	89.59	0.35	7,165.90	3,228.44	837.87	3,328.87	0.00	0.00	0.00
10,700.00	89.59	0.35	7,166.62	3,328.43	838.49	3,427.16	0.00	0.00	0.00
10,800.00	89.59	0.35	7,167.33	3,428.43	839.11	3,525.45	0.00	0.00	0.00
10,900.00	89.59	0.35	7,168.05	3,528.43	839.72	3,623.73	0.00	0.00	0.00
11,000.00	89.59	0.35	7,168.76	3,628.42	840.34	3,722.02	0.00	0.00	0.00
11,100.00	89.59	0.35	7,169.48	3,728.42	840.96	3,820.31	0.00	0.00	0.00
11,200.00	89.59	0.35	7,170.19	3,828.41	841.57	3,918.59	0.00	0.00	0.00
11,300.00	89.59	0.35	7,170.91	3,928.41	842.19	4,016.88	0.00	0.00	0.00
11,400.00	89.59	0.35	7,171.62	4,028.40	842.80	4,115.17	0.00	0.00	0.00
11,500.00	89.59	0.35	7,172.34	4,128.40	843.42	4,213.46	0.00	0.00	0.00
11,600.00	89.59	0.35	7,173.06	4,228.39	844.04	4,311.74	0.00	0.00	0.00
11,700.00	89.59	0.35	7,173.77	4,328.39	844.65	4,410.03	0.00	0.00	0.00
11,732.10	89.59	0.35	7,174.00	4,360.49	844.85	4,441.58	0.00	0.00	0.00
TD at 11732.10 - CAMP 3N-31HZ BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CAMP 3N-31HZ BHL	0.00	0.00	7,174.00	4,360.49	844.85	1,312,294.17	3,221,279.55	40.187931	-104.707956
- 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	13-1/2	
7,538.17	7,144.00	7"	7	8-3/4	

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well CAMP 3N-31HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 4996.00ft (Original Well Elev)
<b>Site:</b>	WELD_CAMP 35-31HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	CAMP 3N-31HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	CAMP 3N-31HZ		
<b>Design:</b>	CAMP 3N-31HZ (wp01)		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,027.94	3,995.00	PARKMAN		0.00	
4,449.23	4,411.00	SUSSEX		0.00	
7,161.11	7,023.00	SHARON SPINGS		0.00	
7,292.66	7,091.00	NIOBRARA A		0.00	
7,358.29	7,115.00	NIOBRARA B		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,100.00	1,100.00	0.00	0.00	Start Build 2.00	
1,554.33	1,552.43	-17.27	31.53	Start 5044.88 hold at 1554.33 MD	
6,599.21	6,534.00	-400.00	730.30	Start DLS 10.00 TFO -118.12	
7,538.49	7,144.00	167.07	819.00	Start 4193.61 hold at 7538.49 MD	
11,732.10	7,174.00	4,360.49	844.85	TD at 11732.10	