

# **US ROCKIES REGION PLANNING**

**COLORADO-NAD83-UTMFT13N**

**WELD\_BELLA FED 36-8HZ**

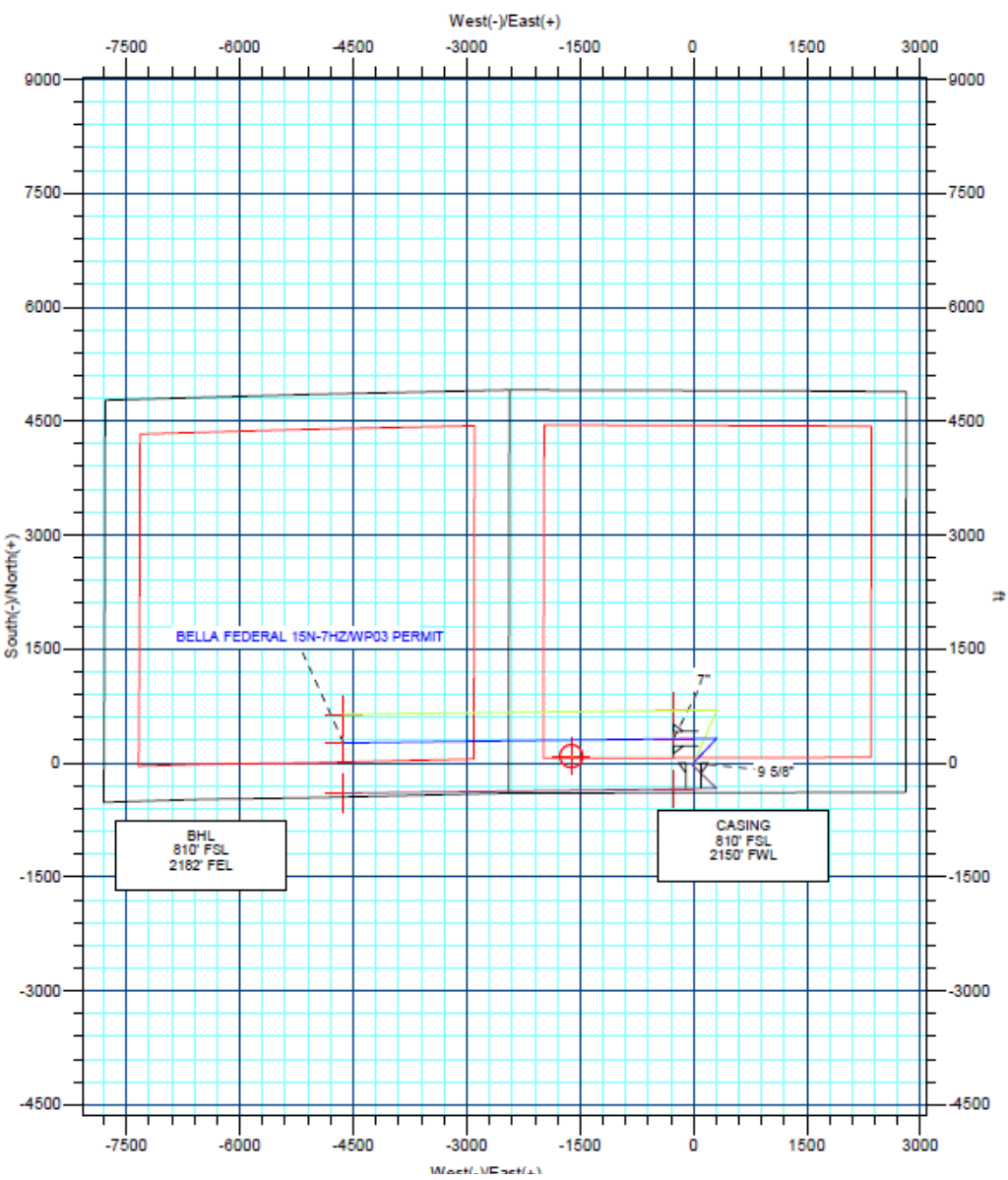
**BELLA FEDERAL 15N-7HZ**

**Wellbore #1**

**Plan: WP03 PERMIT**

## **Standard Planning Report**

**25 April, 2013**



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Azimuths to True North

Magnetic North: 8.63°

Magnetic Field Strength: 52853.4nT

Dip Angle: 66.85°

Date: 3/21/2013

Model: IGRF2010

Anadarko

Petroleum Corporation

Project: COLORADO-NAD83-UTMFT13N  
Site: WELD BELLA FED 36-8HZ  
Well: BELLA FEDERAL 15N-7HZ  
Wellbore: Wellbore #1  
Design: WP03 PERMIT  
Latitude: 40.233114  
Longitude: -104.801979  
GL: 4881.00  
KB: 17'RKB+4881'GL @ 4898.00ft

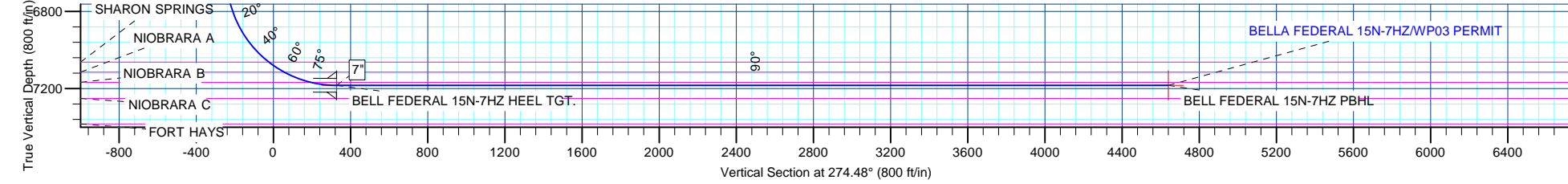
WELL DETAILS: BELLA FEDERAL 15N-7HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4881.00 Latitude	Longitude	Slot
0.00	0.00	14611683.09	1695683.61	40.233114	-104.801979	

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
1393.69	5.87	33.23	1393.17	12.58	8.24	2.00	33.23	-7.23
6041.78	5.87	33.23	6016.87	410.46	268.92	0.00	0.00	-236.01
6335.47	0.00	0.00	6310.04	423.04	277.17	2.00	180.00	-243.25
6635.47	0.00	0.00	6610.04	423.04	277.17	0.00	0.00	-243.25
7535.47	90.00	269.30	7183.00	416.00	-295.75	10.00	269.30	327.37
11866.31	90.00	269.30	7183.00	362.78	-4626.26	0.00	0.00	4640.46

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BELL FEDERAL 15N-7HZ HEEL TGT.	7183.00	416.00	-295.75	40.234256	-104.803039	Point
BELL FEDERAL 15N-7HZ PBHL	7183.00	362.78	-4626.26	40.234109	-104.818555	Point

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
864.00	864.00	FOX HILLS BASE
2505.00	2511.38	PARKMAN
3888.00	3901.68	SUSSEX
7062.00	7156.22	SHARON SPRINGS
7114.00	7251.38	NIOBRARA A
7168.00	7404.08	NIOBRARA B

CASING DETAILS			
TVD	MD	Name	Size
914.00	914.00	9 5/8"	9-5/8
7183.00	7535.47	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BELLA FEDERAL 15N-7HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	17'RKB+4881'GL @ 4898.00ft
<b>Project:</b>	COLORADO-NAD83-UTMFT13N	<b>MD Reference:</b>	17'RKB+4881'GL @ 4898.00ft
<b>Site:</b>	WELD_BELLA FED 36-8HZ	<b>North Reference:</b>	True
<b>Well:</b>	BELLA FEDERAL 15N-7HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	WP03 PERMIT		

<b>Project</b>	COLORADO-NAD83-UTMFT13N		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

Site		WELD_BELLA FED 36-8HZ			
Site Position:		Northing:	14,613,420.87 usft	Latitude:	40.237886
From:	Lat/Long	Easting:	1,695,687.27 usft	Longitude:	-104.801952
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well	BELLA FEDERAL 15N-7HZ					
Well Position	+N/-S	-1,737.77 ft	Northing:	14,611,683.09 usft	Latitude:	40.233114
	+E/-W	-7.54 ft	Easting:	1,695,683.61 usft	Longitude:	-104.801979
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,881.00 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/21/2013	8.63	66.85	52,853

<b>Design</b>	WP03 PERMIT			
<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	274.48

<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	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,393.69	5.87	33.23	1,393.17	12.58	8.24	2.00	2.00	0.00	33.23	
6,041.78	5.87	33.23	6,016.87	410.46	268.92	0.00	0.00	0.00	0.00	
6,335.47	0.00	0.00	6,310.04	423.04	277.17	2.00	-2.00	0.00	180.00	
6,635.47	0.00	0.00	6,610.04	423.04	277.17	0.00	0.00	0.00	0.00	
7,535.47	90.00	269.30	7,183.00	416.00	-295.75	10.00	10.00	0.00	269.30	
11,866.31	90.00	269.30	7,183.00	362.78	-4,626.26	0.00	0.00	0.00	0.00	BELL FEDERAL 15N-

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BELLA FEDERAL 15N-7HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	17°RKB+4881'GL @ 4898.00ft
<b>Project:</b>	COLORADO-NAD83-UTMFT13N	<b>MD Reference:</b>	17°RKB+4881'GL @ 4898.00ft
<b>Site:</b>	WELD_BELLA FED 36-8HZ	<b>North Reference:</b>	True
<b>Well:</b>	BELLA FEDERAL 15N-7HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	WP03 PERMIT		

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
864.00	0.00	0.00	864.00	0.00	0.00	0.00	0.00	0.00	0.00
FOX HILLS BASE									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
914.00	0.00	0.00	914.00	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
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
BEGIN NUDGE									
1,200.00	2.00	33.23	1,199.98	1.46	0.96	-0.84	2.00	2.00	0.00
1,300.00	4.00	33.23	1,299.84	5.84	3.82	-3.36	2.00	2.00	0.00
1,393.69	5.87	33.23	1,393.17	12.58	8.24	-7.23	2.00	2.00	0.00
BEGIN HOLD									
1,400.00	5.87	33.23	1,399.45	13.12	8.60	-7.54	0.00	0.00	0.00
1,500.00	5.87	33.23	1,498.93	21.68	14.21	-12.47	0.00	0.00	0.00
1,600.00	5.87	33.23	1,598.40	30.24	19.81	-17.39	0.00	0.00	0.00
1,700.00	5.87	33.23	1,697.88	38.80	25.42	-22.31	0.00	0.00	0.00
1,800.00	5.87	33.23	1,797.35	47.36	31.03	-27.23	0.00	0.00	0.00
1,900.00	5.87	33.23	1,896.83	55.92	36.64	-32.15	0.00	0.00	0.00
2,000.00	5.87	33.23	1,996.30	64.48	42.25	-37.08	0.00	0.00	0.00
2,100.00	5.87	33.23	2,095.78	73.04	47.86	-42.00	0.00	0.00	0.00
2,200.00	5.87	33.23	2,195.25	81.60	53.46	-46.92	0.00	0.00	0.00
2,300.00	5.87	33.23	2,294.73	90.16	59.07	-51.84	0.00	0.00	0.00
2,400.00	5.87	33.23	2,394.20	98.72	64.68	-56.76	0.00	0.00	0.00
2,500.00	5.87	33.23	2,493.68	107.28	70.29	-61.69	0.00	0.00	0.00
2,511.38	5.87	33.23	2,505.00	108.26	70.93	-62.25	0.00	0.00	0.00
PARKMAN									
2,600.00	5.87	33.23	2,593.15	115.84	75.90	-66.61	0.00	0.00	0.00
2,700.00	5.87	33.23	2,692.63	124.40	81.51	-71.53	0.00	0.00	0.00
2,800.00	5.87	33.23	2,792.10	132.96	87.11	-76.45	0.00	0.00	0.00
2,900.00	5.87	33.23	2,891.58	141.52	92.72	-81.37	0.00	0.00	0.00
3,000.00	5.87	33.23	2,991.05	150.08	98.33	-86.30	0.00	0.00	0.00
3,100.00	5.87	33.23	3,090.53	158.64	103.94	-91.22	0.00	0.00	0.00
3,200.00	5.87	33.23	3,190.00	167.20	109.55	-96.14	0.00	0.00	0.00
3,300.00	5.87	33.23	3,289.48	175.76	115.16	-101.06	0.00	0.00	0.00
3,400.00	5.87	33.23	3,388.95	184.32	120.76	-105.98	0.00	0.00	0.00
3,500.00	5.87	33.23	3,488.43	192.88	126.37	-110.91	0.00	0.00	0.00
3,600.00	5.87	33.23	3,587.90	201.44	131.98	-115.83	0.00	0.00	0.00
3,700.00	5.87	33.23	3,687.38	210.00	137.59	-120.75	0.00	0.00	0.00
3,800.00	5.87	33.23	3,786.85	218.56	143.20	-125.67	0.00	0.00	0.00
3,900.00	5.87	33.23	3,886.33	227.12	148.81	-130.59	0.00	0.00	0.00
3,901.68	5.87	33.23	3,888.00	227.27	148.90	-130.68	0.00	0.00	0.00
SUSSEX									
4,000.00	5.87	33.23	3,985.80	235.68	154.41	-135.52	0.00	0.00	0.00
4,100.00	5.87	33.23	4,085.28	244.24	160.02	-140.44	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>	17°RKB+4881'GL @ 4898.00ft
<b>Project:</b>	COLORADO-NAD83-UTMFT13N	<b>MD Reference:</b>	17°RKB+4881'GL @ 4898.00ft
<b>Site:</b>	WELD_BELLA FED 36-8HZ	<b>North Reference:</b>	True
<b>Well:</b>	BELLA FEDERAL 15N-7HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	WP03 PERMIT		

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)	
4,200.00	5.87	33.23	4,184.75	252.80	165.63	-145.36	0.00	0.00	0.00	
4,300.00	5.87	33.23	4,284.23	261.36	171.24	-150.28	0.00	0.00	0.00	
4,400.00	5.87	33.23	4,383.70	269.92	176.85	-155.20	0.00	0.00	0.00	
4,500.00	5.87	33.23	4,483.18	278.48	182.46	-160.13	0.00	0.00	0.00	
4,600.00	5.87	33.23	4,582.65	287.04	188.06	-165.05	0.00	0.00	0.00	
4,700.00	5.87	33.23	4,682.13	295.60	193.67	-169.97	0.00	0.00	0.00	
4,800.00	5.87	33.23	4,781.60	304.16	199.28	-174.89	0.00	0.00	0.00	
4,900.00	5.87	33.23	4,881.08	312.72	204.89	-179.81	0.00	0.00	0.00	
5,000.00	5.87	33.23	4,980.55	321.28	210.50	-184.74	0.00	0.00	0.00	
5,100.00	5.87	33.23	5,080.03	329.84	216.10	-189.66	0.00	0.00	0.00	
5,200.00	5.87	33.23	5,179.50	338.40	221.71	-194.58	0.00	0.00	0.00	
5,300.00	5.87	33.23	5,278.98	346.96	227.32	-199.50	0.00	0.00	0.00	
5,400.00	5.87	33.23	5,378.45	355.52	232.93	-204.42	0.00	0.00	0.00	
5,500.00	5.87	33.23	5,477.93	364.08	238.54	-209.34	0.00	0.00	0.00	
5,600.00	5.87	33.23	5,577.40	372.64	244.15	-214.27	0.00	0.00	0.00	
5,700.00	5.87	33.23	5,676.88	381.20	249.75	-219.19	0.00	0.00	0.00	
5,800.00	5.87	33.23	5,776.35	389.76	255.36	-224.11	0.00	0.00	0.00	
5,900.00	5.87	33.23	5,875.83	398.32	260.97	-229.03	0.00	0.00	0.00	
6,000.00	5.87	33.23	5,975.30	406.88	266.58	-233.95	0.00	0.00	0.00	
6,041.78	5.87	33.23	6,016.87	410.46	268.92	-236.01	0.00	0.00	0.00	
<b>BEGIN DROP</b>										
6,100.00	4.71	33.23	6,074.83	414.95	271.87	-238.59	2.00	-2.00	0.00	
6,200.00	2.71	33.23	6,174.62	420.36	275.41	-241.70	2.00	-2.00	0.00	
6,300.00	0.71	33.23	6,274.57	422.86	277.05	-243.14	2.00	-2.00	0.00	
6,335.47	0.00	0.00	6,310.04	423.04	277.17	-243.25	2.00	-2.00	0.00	
<b>BEGIN HOLD</b>										
6,400.00	0.00	0.00	6,374.57	423.04	277.17	-243.25	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,474.57	423.04	277.17	-243.25	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,574.57	423.04	277.17	-243.25	0.00	0.00	0.00	
6,635.47	0.00	0.00	6,610.04	423.04	277.17	-243.25	0.00	0.00	0.00	
<b>KOP</b>										
6,650.00	1.45	269.30	6,624.57	423.04	276.98	-243.06	10.00	10.00	0.00	
6,700.00	6.45	269.30	6,674.43	423.00	273.54	-239.63	10.00	10.00	0.00	
6,750.00	11.45	269.30	6,723.81	422.90	265.76	-231.88	10.00	10.00	0.00	
6,800.00	16.45	269.30	6,772.32	422.75	253.71	-219.88	10.00	10.00	0.00	
6,850.00	21.45	269.30	6,819.59	422.55	237.47	-203.71	10.00	10.00	0.00	
6,900.00	26.45	269.30	6,865.27	422.30	217.18	-183.50	10.00	10.00	0.00	
6,950.00	31.45	269.30	6,909.01	422.01	192.99	-159.41	10.00	10.00	0.00	
7,000.00	36.45	269.30	6,950.47	421.66	165.07	-131.60	10.00	10.00	0.00	
7,050.00	41.45	269.30	6,989.34	421.28	133.65	-100.31	10.00	10.00	0.00	
7,100.00	46.45	269.30	7,025.32	420.85	98.96	-65.76	10.00	10.00	0.00	
7,150.00	51.45	269.30	7,058.15	420.39	61.27	-28.22	10.00	10.00	0.00	
7,156.22	52.08	269.30	7,062.00	420.33	56.38	-23.35	10.00	10.00	0.00	
<b>SHARON SPRINGS</b>										
7,200.00	56.45	269.30	7,087.56	419.89	20.86	12.03	10.00	10.00	0.00	
7,250.00	61.45	269.30	7,113.34	419.36	-21.96	54.68	10.00	10.00	0.00	
7,251.38	61.59	269.30	7,114.00	419.35	-23.18	55.89	10.00	10.00	0.00	
<b>NIOBRARA A</b>										
7,300.00	66.45	269.30	7,135.29	418.81	-66.87	99.40	10.00	10.00	0.00	
7,350.00	71.45	269.30	7,153.24	418.24	-113.51	145.86	10.00	10.00	0.00	
7,400.00	76.45	269.30	7,167.06	417.65	-161.55	193.70	10.00	10.00	0.00	
7,404.08	76.86	269.30	7,168.00	417.60	-165.52	197.66	10.00	10.00	0.00	
<b>NIOBRARA B</b>										

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BELLA FEDERAL 15N-7HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	17'RKB+4881'GL @ 4898.00ft
<b>Project:</b>	COLORADO-NAD83-UTMFT13N	<b>MD Reference:</b>	17'RKB+4881'GL @ 4898.00ft
<b>Site:</b>	WELD_BELLA FED 36-8HZ	<b>North Reference:</b>	True
<b>Well:</b>	BELLA FEDERAL 15N-7HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	WP03 PERMIT		

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)	
7,450.00	81.45	269.30	7,176.64	417.05	-210.60	242.56	10.00	10.00	0.00	
7,500.00	86.45	269.30	7,181.90	416.44	-260.30	292.06	10.00	10.00	0.00	
7,535.47	90.00	269.30	7,183.00	416.00	-295.75	327.36	10.00	10.00	0.00	
BEGIN HOLD - 7"										
7,535.48	90.00	269.30	7,183.00	416.00	-295.75	327.37	0.00	0.00	0.00	
BELL FEDERAL 15N-7HZ HEEL TGT.										
7,600.00	90.00	269.30	7,183.00	415.21	-360.27	391.63	0.00	0.00	0.00	
7,700.00	90.00	269.30	7,183.00	413.98	-460.26	491.22	0.00	0.00	0.00	
7,800.00	90.00	269.30	7,183.00	412.75	-560.26	590.81	0.00	0.00	0.00	
7,900.00	90.00	269.30	7,183.00	411.52	-660.25	690.40	0.00	0.00	0.00	
8,000.00	90.00	269.30	7,183.00	410.29	-760.24	789.99	0.00	0.00	0.00	
8,100.00	90.00	269.30	7,183.00	409.06	-860.23	889.58	0.00	0.00	0.00	
8,200.00	90.00	269.30	7,183.00	407.83	-960.23	989.17	0.00	0.00	0.00	
8,300.00	90.00	269.30	7,183.00	406.61	-1,060.22	1,088.76	0.00	0.00	0.00	
8,400.00	90.00	269.30	7,183.00	405.38	-1,160.21	1,188.35	0.00	0.00	0.00	
8,500.00	90.00	269.30	7,183.00	404.15	-1,260.20	1,287.94	0.00	0.00	0.00	
8,600.00	90.00	269.30	7,183.00	402.92	-1,360.20	1,387.53	0.00	0.00	0.00	
8,700.00	90.00	269.30	7,183.00	401.69	-1,460.19	1,487.12	0.00	0.00	0.00	
8,800.00	90.00	269.30	7,183.00	400.46	-1,560.18	1,586.71	0.00	0.00	0.00	
8,900.00	90.00	269.30	7,183.00	399.23	-1,660.17	1,686.30	0.00	0.00	0.00	
9,000.00	90.00	269.30	7,183.00	398.00	-1,760.17	1,785.89	0.00	0.00	0.00	
9,100.00	90.00	269.30	7,183.00	396.77	-1,860.16	1,885.48	0.00	0.00	0.00	
9,200.00	90.00	269.30	7,183.00	395.55	-1,960.15	1,985.07	0.00	0.00	0.00	
9,300.00	90.00	269.30	7,183.00	394.32	-2,060.14	2,084.66	0.00	0.00	0.00	
9,400.00	90.00	269.30	7,183.00	393.09	-2,160.14	2,184.26	0.00	0.00	0.00	
9,500.00	90.00	269.30	7,183.00	391.86	-2,260.13	2,283.85	0.00	0.00	0.00	
9,600.00	90.00	269.30	7,183.00	390.63	-2,360.12	2,383.44	0.00	0.00	0.00	
9,700.00	90.00	269.30	7,183.00	389.40	-2,460.11	2,483.03	0.00	0.00	0.00	
9,800.00	90.00	269.30	7,183.00	388.17	-2,560.11	2,582.62	0.00	0.00	0.00	
9,900.00	90.00	269.30	7,183.00	386.94	-2,660.10	2,682.21	0.00	0.00	0.00	
10,000.00	90.00	269.30	7,183.00	385.72	-2,760.09	2,781.80	0.00	0.00	0.00	
10,100.00	90.00	269.30	7,183.00	384.49	-2,860.08	2,881.39	0.00	0.00	0.00	
10,200.00	90.00	269.30	7,183.00	383.26	-2,960.08	2,980.98	0.00	0.00	0.00	
10,300.00	90.00	269.30	7,183.00	382.03	-3,060.07	3,080.57	0.00	0.00	0.00	
10,400.00	90.00	269.30	7,183.00	380.80	-3,160.06	3,180.16	0.00	0.00	0.00	
10,500.00	90.00	269.30	7,183.00	379.57	-3,260.05	3,279.75	0.00	0.00	0.00	
10,600.00	90.00	269.30	7,183.00	378.34	-3,360.04	3,379.34	0.00	0.00	0.00	
10,700.00	90.00	269.30	7,183.00	377.11	-3,460.04	3,478.93	0.00	0.00	0.00	
10,800.00	90.00	269.30	7,183.00	375.88	-3,560.03	3,578.52	0.00	0.00	0.00	
10,900.00	90.00	269.30	7,183.00	374.66	-3,660.02	3,678.11	0.00	0.00	0.00	
11,000.00	90.00	269.30	7,183.00	373.43	-3,760.01	3,777.70	0.00	0.00	0.00	
11,100.00	90.00	269.30	7,183.00	372.20	-3,860.01	3,877.29	0.00	0.00	0.00	
11,200.00	90.00	269.30	7,183.00	370.97	-3,960.00	3,976.88	0.00	0.00	0.00	
11,300.00	90.00	269.30	7,183.00	369.74	-4,059.99	4,076.47	0.00	0.00	0.00	
11,400.00	90.00	269.30	7,183.00	368.51	-4,159.98	4,176.06	0.00	0.00	0.00	
11,500.00	90.00	269.30	7,183.00	367.28	-4,259.98	4,275.65	0.00	0.00	0.00	
11,600.00	90.00	269.30	7,183.00	366.05	-4,359.97	4,375.24	0.00	0.00	0.00	
11,700.00	90.00	269.30	7,183.00	364.83	-4,459.96	4,474.83	0.00	0.00	0.00	
11,800.00	90.00	269.30	7,183.00	363.60	-4,559.95	4,574.42	0.00	0.00	0.00	
11,866.31	90.00	269.30	7,183.00	362.78	-4,626.26	4,640.46	0.00	0.00	0.00	
TD - BELL FEDERAL 15N-7HZ PBHL										

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BELLA FEDERAL 15N-7HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	17'RKB+4881'GL @ 4898.00ft
<b>Project:</b>	COLORADO-NAD83-UTMFT13N	<b>MD Reference:</b>	17'RKB+4881'GL @ 4898.00ft
<b>Site:</b>	WELD_BELLA FED 36-8HZ	<b>North Reference:</b>	True
<b>Well:</b>	BELLA FEDERAL 15N-7HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	WP03 PERMIT		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
BELL FEDERAL 15N-7H - plan hits target center - Point	0.00	0.00	7,183.00	362.78	-4,626.26	14,612,035.54	1,691,056.57	40.234109	-104.818555
BELL FEDERAL 15N-7H - plan hits target center - Point	0.00	0.00	7,183.00	416.00	-295.75	14,612,098.42	1,695,386.93	40.234256	-104.803039

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
914.00	914.00	9 5/8"		9-5/8	12-1/4
7,535.47	7,183.00	7"		7	8-3/4

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
864.00	846.00	FOX HILLS BASE		0.00	
2,511.38	2,487.00	PARKMAN		0.00	
3,901.68	3,870.00	SUSSEX		0.00	
7,156.22	7,044.00	SHARON SPRINGS		0.00	
7,251.38	7,096.00	NIOBRARA A		0.00	
7,404.08	7,150.00	NIOBRARA B		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
1,100.00	1,100.00	0.00	0.00	BEGIN NUDGE
1,393.69	1,393.17	12.58	8.24	BEGIN HOLD
6,041.78	6,016.87	410.46	268.92	BEGIN DROP
6,335.47	6,310.04	423.04	277.17	BEGIN HOLD
6,635.47	6,610.04	423.04	277.17	KOP
7,535.47	7,183.00	416.00	-295.75	BEGIN HOLD
11,866.31	7,183.00	362.78	-4,626.26	TD