

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_BROWN 5 PAD**

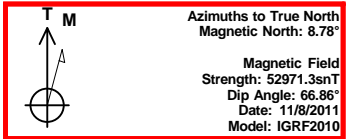
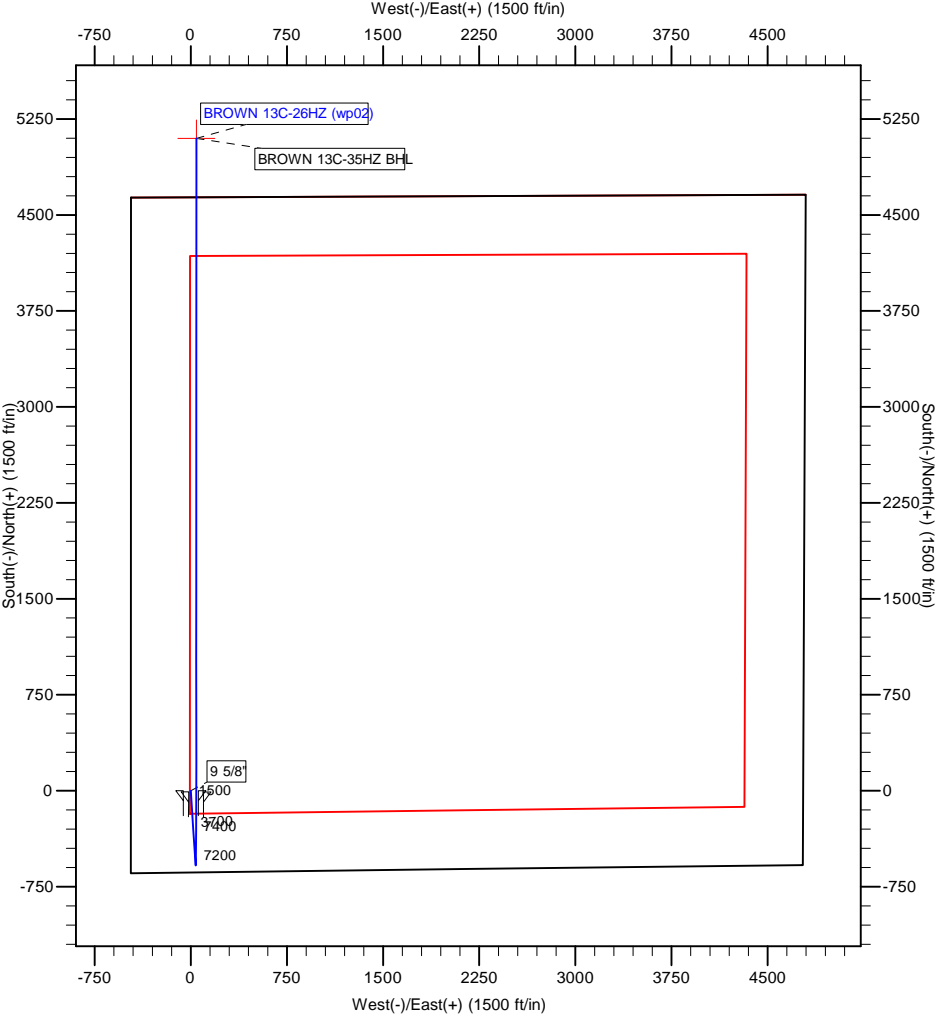
**BROWN 13C-26HZ**

**BROWN 13C-26HZ**

**Plan: BROWN 13C-26HZ (wp02)**

## **Standard Planning Report**

**16 December, 2011**



Project: COLORADO NORTHERN ZONE - 83  
Site: WELD BROWN 5 PAD  
Well: BROWN 13C-26HZ  
Wellbore: BROWN 13C-26HZ  
Section:  
SHL:  
Design: BROWN 13C-26HZ (wp02)  
Latitude: 40.176226  
Longitude: -104.752098  
GL: 5020.00  
KB: GL +25' RKB @ 5045.00ft

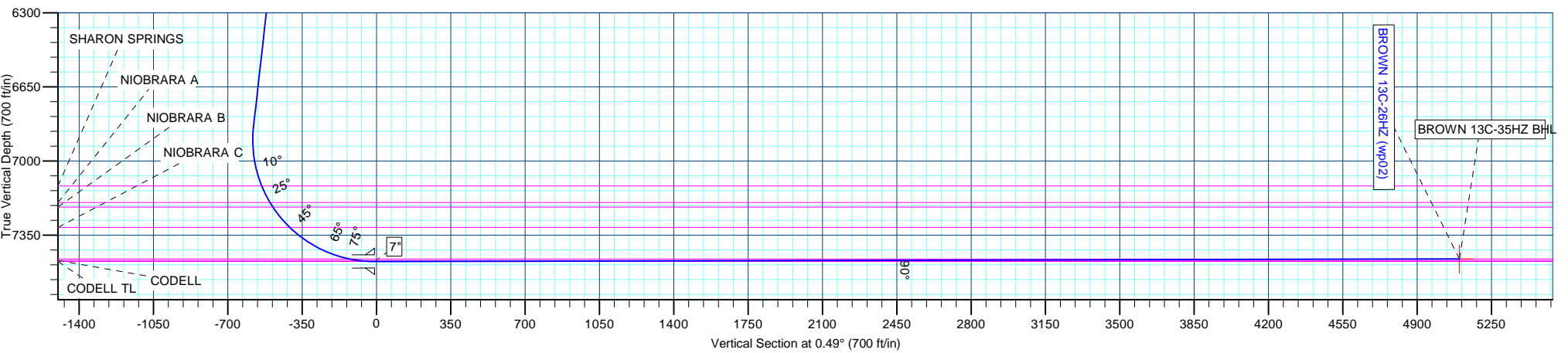
WELL DETAILS: BROWN 13C-26HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	5020.00 Latitude	40.176226 Longitude	Slot
0.00	0.00	1307923.30	3208983.52	40.176226	-104.752098	

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
1820.08	6.40	176.23	1819.41	-17.82	1.18	2.00	176.23	-17.81
6870.47	6.40	176.23	6838.32	-579.70	38.22	0.00	0.00	-579.35
7835.65	90.13	0.01	7475.00	-9.00	43.00	10.00	-176.20	-8.63
7836.11	90.13	0.01	7475.00	-8.54	43.00	1.00	0.00	-8.17
12943.91	90.13	0.01	7463.00	5099.25	43.58	0.00	0.00	5099.44

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	Point
BROWN 13C-35HZ BHL	7463.00	5099.25	43.58	40.190224	-104.751942		

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3315.00	3325.05	PARKMAN
4503.00	4520.50	SUSSEX
7118.00	7155.77	SHARON SPRINGS
7196.00	7243.01	NIOBRARA A
7218.00	7269.00	NIOBRARA B
7314.00	7394.06	NIOBRARA C
7463.00	7716.87	CODELL TL
7470.00	7758.59	CODELL
7475.00	7835.65	CODELL TL

CASING DETAILS			
TVD	MD	Name	Size
700.00	700.00	9 5/8"	9-5/8
7475.00	7835.00	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 13C-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Site:</b>	WELD_BROWN 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 13C-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 13C-26HZ		
<b>Design:</b>	BROWN 13C-26HZ (wp02)		

<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		

Site		WELD_BROWN 5 PAD			
Site Position:		Northing:	1,307,923.32 usft	Latitude:	40.176226
From:	Lat/Long	Easting:	3,208,983.52 usft	Longitude:	-104.752098
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.48 °

Well		BROWN 13C-26HZ				
Well Position	+N/-S	-0.02 ft	Northing:	1,307,923.30 usft	Latitude:	40.176226
	+E/-W	0.00 ft	Easting:	3,208,983.52 usft	Longitude:	-104.752098
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,020.00 ft

<b>Wellbore</b>	BROWN 13C-26HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/8/2011	8.78	66.86	52,971

<b>Design</b>	BROWN 13C-26HZ (wp02)			
<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>
	8.00	0.00	0.00	0.49

<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	
1,820.08	6.40	176.23	1,819.41	-17.82	1.18	2.00	2.00	0.00	176.23	
6,870.47	6.40	176.23	6,838.32	-579.70	38.22	0.00	0.00	0.00	0.00	
7,835.65	90.13	0.01	7,475.00	-9.00	43.00	10.00	8.67	-18.26	-176.20	
7,836.11	90.13	0.01	7,475.00	-8.54	43.00	1.00	1.00	0.00	0.00	
12,943.91	90.13	0.01	7,463.00	5,099.25	43.58	0.00	0.00	0.00	0.00	BROWN 13C-35HZ B

# Anadarko Petroleum Corp

## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Site:</b>	WELD_BROWN 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 13C-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 13C-26HZ		
<b>Design:</b>	BROWN 13C-26HZ (wp02)		

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
Start Build 2.00									
1,600.00	2.00	176.23	1,599.98	-1.74	0.11	-1.74	2.00	2.00	0.00
1,700.00	4.00	176.23	1,699.84	-6.96	0.46	-6.96	2.00	2.00	0.00
1,800.00	6.00	176.23	1,799.45	-15.66	1.03	-15.65	2.00	2.00	0.00
1,820.08	6.40	176.23	1,819.41	-17.82	1.18	-17.81	2.00	2.00	0.00
Start 5050.39 hold at 1820.08 MD									
1,900.00	6.40	176.23	1,898.84	-26.72	1.76	-26.70	0.00	0.00	0.00
2,000.00	6.40	176.23	1,998.21	-37.84	2.49	-37.82	0.00	0.00	0.00
2,100.00	6.40	176.23	2,097.59	-48.97	3.23	-48.94	0.00	0.00	0.00
2,200.00	6.40	176.23	2,196.97	-60.09	3.96	-60.06	0.00	0.00	0.00
2,300.00	6.40	176.23	2,296.34	-71.22	4.69	-71.17	0.00	0.00	0.00
2,400.00	6.40	176.23	2,395.72	-82.34	5.43	-82.29	0.00	0.00	0.00
2,500.00	6.40	176.23	2,495.10	-93.47	6.16	-93.41	0.00	0.00	0.00
2,600.00	6.40	176.23	2,594.47	-104.59	6.90	-104.53	0.00	0.00	0.00
2,700.00	6.40	176.23	2,693.85	-115.72	7.63	-115.65	0.00	0.00	0.00
2,800.00	6.40	176.23	2,793.22	-126.84	8.36	-126.77	0.00	0.00	0.00
2,900.00	6.40	176.23	2,892.60	-137.97	9.10	-137.89	0.00	0.00	0.00
3,000.00	6.40	176.23	2,991.98	-149.09	9.83	-149.01	0.00	0.00	0.00
3,100.00	6.40	176.23	3,091.35	-160.22	10.56	-160.12	0.00	0.00	0.00
3,200.00	6.40	176.23	3,190.73	-171.35	11.30	-171.24	0.00	0.00	0.00
3,300.00	6.40	176.23	3,290.11	-182.47	12.03	-182.36	0.00	0.00	0.00
3,325.05	6.40	176.23	3,315.00	-185.26	12.21	-185.15	0.00	0.00	0.00
PARKMAN									
3,400.00	6.40	176.23	3,389.48	-193.60	12.76	-193.48	0.00	0.00	0.00
3,500.00	6.40	176.23	3,488.86	-204.72	13.50	-204.60	0.00	0.00	0.00
3,600.00	6.40	176.23	3,588.24	-215.85	14.23	-215.72	0.00	0.00	0.00
3,700.00	6.40	176.23	3,687.61	-226.97	14.96	-226.84	0.00	0.00	0.00
3,800.00	6.40	176.23	3,786.99	-238.10	15.70	-237.96	0.00	0.00	0.00
3,900.00	6.40	176.23	3,886.37	-249.22	16.43	-249.07	0.00	0.00	0.00
4,000.00	6.40	176.23	3,985.74	-260.35	17.16	-260.19	0.00	0.00	0.00
4,100.00	6.40	176.23	4,085.12	-271.47	17.90	-271.31	0.00	0.00	0.00
4,200.00	6.40	176.23	4,184.50	-282.60	18.63	-282.43	0.00	0.00	0.00
4,300.00	6.40	176.23	4,283.87	-293.73	19.36	-293.55	0.00	0.00	0.00
4,400.00	6.40	176.23	4,383.25	-304.85	20.10	-304.67	0.00	0.00	0.00
4,500.00	6.40	176.23	4,482.63	-315.98	20.83	-315.79	0.00	0.00	0.00
4,520.50	6.40	176.23	4,503.00	-318.26	20.98	-318.07	0.00	0.00	0.00
SUSSEX									

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 13C-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Site:</b>	WELD_BROWN 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 13C-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 13C-26HZ		
<b>Design:</b>	BROWN 13C-26HZ (wp02)		

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	6.40	176.23	4,582.00	-327.10	21.56	-326.91	0.00	0.00	0.00
4,700.00	6.40	176.23	4,681.38	-338.23	22.30	-338.02	0.00	0.00	0.00
4,800.00	6.40	176.23	4,780.75	-349.35	23.03	-349.14	0.00	0.00	0.00
4,900.00	6.40	176.23	4,880.13	-360.48	23.76	-360.26	0.00	0.00	0.00
5,000.00	6.40	176.23	4,979.51	-371.60	24.50	-371.38	0.00	0.00	0.00
5,100.00	6.40	176.23	5,078.88	-382.73	25.23	-382.50	0.00	0.00	0.00
5,200.00	6.40	176.23	5,178.26	-393.85	25.96	-393.62	0.00	0.00	0.00
5,300.00	6.40	176.23	5,277.64	-404.98	26.70	-404.74	0.00	0.00	0.00
5,400.00	6.40	176.23	5,377.01	-416.11	27.43	-415.86	0.00	0.00	0.00
5,500.00	6.40	176.23	5,476.39	-427.23	28.17	-426.97	0.00	0.00	0.00
5,600.00	6.40	176.23	5,575.77	-438.36	28.90	-438.09	0.00	0.00	0.00
5,700.00	6.40	176.23	5,675.14	-449.48	29.63	-449.21	0.00	0.00	0.00
5,800.00	6.40	176.23	5,774.52	-460.61	30.37	-460.33	0.00	0.00	0.00
5,900.00	6.40	176.23	5,873.90	-471.73	31.10	-471.45	0.00	0.00	0.00
6,000.00	6.40	176.23	5,973.27	-482.86	31.83	-482.57	0.00	0.00	0.00
6,100.00	6.40	176.23	6,072.65	-493.98	32.57	-493.69	0.00	0.00	0.00
6,200.00	6.40	176.23	6,172.03	-505.11	33.30	-504.81	0.00	0.00	0.00
6,300.00	6.40	176.23	6,271.40	-516.23	34.03	-515.92	0.00	0.00	0.00
6,400.00	6.40	176.23	6,370.78	-527.36	34.77	-527.04	0.00	0.00	0.00
6,500.00	6.40	176.23	6,470.15	-538.48	35.50	-538.16	0.00	0.00	0.00
6,600.00	6.40	176.23	6,569.53	-549.61	36.23	-549.28	0.00	0.00	0.00
6,700.00	6.40	176.23	6,668.91	-560.74	36.97	-560.40	0.00	0.00	0.00
6,800.00	6.40	176.23	6,768.28	-571.86	37.70	-571.52	0.00	0.00	0.00
6,870.47	6.40	176.23	6,838.32	-579.70	38.22	-579.35	0.00	0.00	0.00
<b>Start DLS 10.00 TFO -176.20</b>									
6,900.00	3.46	172.98	6,867.73	-582.23	38.43	-581.88	10.00	-9.96	-10.99
7,000.00	6.58	3.68	6,967.57	-579.50	39.17	-579.15	10.00	3.12	-169.30
7,100.00	16.57	1.43	7,065.41	-559.48	39.90	-559.12	10.00	9.99	-2.25
7,155.77	22.15	1.05	7,118.00	-541.01	40.29	-540.64	10.00	10.00	-0.69
<b>SHARON SPRINGS</b>									
7,200.00	26.57	0.85	7,158.29	-522.77	40.59	-522.40	10.00	10.00	-0.44
7,243.01	30.87	0.72	7,196.00	-502.11	40.87	-501.74	10.00	10.00	-0.32
<b>NIORARA A</b>									
7,269.00	33.47	0.65	7,218.00	-488.27	41.04	-487.90	10.00	10.00	-0.26
<b>NIORARA B</b>									
7,300.00	36.57	0.58	7,243.38	-470.49	41.23	-470.12	10.00	10.00	-0.22
7,394.06	45.97	0.42	7,314.00	-408.52	41.76	-408.14	10.00	10.00	-0.17
<b>NIORARA C</b>									
7,400.00	46.57	0.41	7,318.11	-404.23	41.79	-403.85	10.00	10.00	-0.14
7,500.00	56.57	0.29	7,380.19	-325.99	42.26	-325.62	10.00	10.00	-0.12
7,600.00	66.57	0.19	7,427.74	-238.17	42.62	-237.80	10.00	10.00	-0.10
7,700.00	76.57	0.11	7,459.32	-143.42	42.87	-143.05	10.00	10.00	-0.08
7,716.87	78.25	0.10	7,463.00	-126.96	42.90	-126.59	10.00	10.00	-0.08
<b>CODELL TL</b>									
7,758.59	82.42	0.06	7,470.00	-85.84	42.95	-85.47	10.00	10.00	-0.08
<b>CODELL</b>									
7,800.00	86.57	0.03	7,473.97	-44.63	42.99	-44.26	10.00	10.00	-0.07
7,835.00	90.07	0.01	7,475.00	-9.65	43.00	-9.28	10.00	10.00	-0.07
<b>7"</b>									
7,835.65	90.13	0.01	7,475.00	-9.00	43.00	-8.63	10.00	10.00	-0.07
<b>CODELL TL</b>									
7,836.11	90.13	0.01	7,475.00	-8.54	43.00	-8.17	1.00	1.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 13C-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Site:</b>	WELD_BROWN 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 13C-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 13C-26HZ		
<b>Design:</b>	BROWN 13C-26HZ (wp02)		

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)
Start 5107.80 hold at 7836.11 MD									
7,900.00	90.13	0.01	7,474.85	55.35	43.01	55.72	0.00	0.00	0.00
8,000.00	90.13	0.01	7,474.61	155.35	43.02	155.71	0.00	0.00	0.00
8,100.00	90.13	0.01	7,474.38	255.35	43.03	255.71	0.00	0.00	0.00
8,200.00	90.13	0.01	7,474.14	355.35	43.04	355.70	0.00	0.00	0.00
8,300.00	90.13	0.01	7,473.91	455.35	43.05	455.70	0.00	0.00	0.00
8,400.00	90.13	0.01	7,473.67	555.35	43.06	555.70	0.00	0.00	0.00
8,500.00	90.13	0.01	7,473.44	655.35	43.08	655.69	0.00	0.00	0.00
8,600.00	90.13	0.01	7,473.20	755.35	43.09	755.69	0.00	0.00	0.00
8,700.00	90.13	0.01	7,472.97	855.35	43.10	855.69	0.00	0.00	0.00
8,800.00	90.13	0.01	7,472.73	955.35	43.11	955.68	0.00	0.00	0.00
8,900.00	90.13	0.01	7,472.50	1,055.35	43.12	1,055.68	0.00	0.00	0.00
9,000.00	90.13	0.01	7,472.26	1,155.35	43.13	1,155.67	0.00	0.00	0.00
9,100.00	90.13	0.01	7,472.03	1,255.35	43.14	1,255.67	0.00	0.00	0.00
9,200.00	90.13	0.01	7,471.80	1,355.35	43.16	1,355.67	0.00	0.00	0.00
9,300.00	90.13	0.01	7,471.56	1,455.35	43.17	1,455.66	0.00	0.00	0.00
9,400.00	90.13	0.01	7,471.33	1,555.35	43.18	1,555.66	0.00	0.00	0.00
9,500.00	90.13	0.01	7,471.09	1,655.35	43.19	1,655.65	0.00	0.00	0.00
9,600.00	90.13	0.01	7,470.86	1,755.35	43.20	1,755.65	0.00	0.00	0.00
9,700.00	90.13	0.01	7,470.62	1,855.35	43.21	1,855.65	0.00	0.00	0.00
9,800.00	90.13	0.01	7,470.39	1,955.35	43.22	1,955.64	0.00	0.00	0.00
9,900.00	90.13	0.01	7,470.15	2,055.35	43.24	2,055.64	0.00	0.00	0.00
10,000.00	90.13	0.01	7,469.92	2,155.34	43.25	2,155.64	0.00	0.00	0.00
10,100.00	90.13	0.01	7,469.68	2,255.34	43.26	2,255.63	0.00	0.00	0.00
10,200.00	90.13	0.01	7,469.45	2,355.34	43.27	2,355.63	0.00	0.00	0.00
10,300.00	90.13	0.01	7,469.21	2,455.34	43.28	2,455.62	0.00	0.00	0.00
10,400.00	90.13	0.01	7,468.98	2,555.34	43.29	2,555.62	0.00	0.00	0.00
10,500.00	90.13	0.01	7,468.74	2,655.34	43.30	2,655.62	0.00	0.00	0.00
10,600.00	90.13	0.01	7,468.51	2,755.34	43.32	2,755.61	0.00	0.00	0.00
10,700.00	90.13	0.01	7,468.27	2,855.34	43.33	2,855.61	0.00	0.00	0.00
10,800.00	90.13	0.01	7,468.04	2,955.34	43.34	2,955.61	0.00	0.00	0.00
10,900.00	90.13	0.01	7,467.80	3,055.34	43.35	3,055.60	0.00	0.00	0.00
11,000.00	90.13	0.01	7,467.57	3,155.34	43.36	3,155.60	0.00	0.00	0.00
11,100.00	90.13	0.01	7,467.33	3,255.34	43.37	3,255.59	0.00	0.00	0.00
11,200.00	90.13	0.01	7,467.10	3,355.34	43.38	3,355.59	0.00	0.00	0.00
11,300.00	90.13	0.01	7,466.86	3,455.34	43.40	3,455.59	0.00	0.00	0.00
11,400.00	90.13	0.01	7,466.63	3,555.34	43.41	3,555.58	0.00	0.00	0.00
11,500.00	90.13	0.01	7,466.39	3,655.34	43.42	3,655.58	0.00	0.00	0.00
11,600.00	90.13	0.01	7,466.16	3,755.34	43.43	3,755.57	0.00	0.00	0.00
11,700.00	90.13	0.01	7,465.92	3,855.34	43.44	3,855.57	0.00	0.00	0.00
11,800.00	90.13	0.01	7,465.69	3,955.34	43.45	3,955.57	0.00	0.00	0.00
11,900.00	90.13	0.01	7,465.45	4,055.34	43.46	4,055.56	0.00	0.00	0.00
12,000.00	90.13	0.01	7,465.22	4,155.34	43.48	4,155.56	0.00	0.00	0.00
12,100.00	90.13	0.01	7,464.98	4,255.34	43.49	4,255.56	0.00	0.00	0.00
12,200.00	90.13	0.01	7,464.75	4,355.34	43.50	4,355.55	0.00	0.00	0.00
12,300.00	90.13	0.01	7,464.51	4,455.34	43.51	4,455.55	0.00	0.00	0.00
12,400.00	90.13	0.01	7,464.28	4,555.34	43.52	4,555.54	0.00	0.00	0.00
12,500.00	90.13	0.01	7,464.04	4,655.34	43.53	4,655.54	0.00	0.00	0.00
12,600.00	90.13	0.01	7,463.81	4,755.34	43.54	4,755.54	0.00	0.00	0.00
12,700.00	90.13	0.01	7,463.57	4,855.34	43.56	4,855.53	0.00	0.00	0.00
12,800.00	90.13	0.01	7,463.34	4,955.34	43.57	4,955.53	0.00	0.00	0.00
12,900.00	90.13	0.01	7,463.10	5,055.34	43.58	5,055.52	0.00	0.00	0.00
12,943.91	90.13	0.01	7,463.00	5,099.25	43.58	5,099.44	0.00	0.00	0.00
TD at 12943.91 - BROWN 13C-35HZ BHL									

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 13C-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL +25' RKB @ 5045.00ft
<b>Site:</b>	WELD_BROWN 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 13C-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 13C-26HZ		
<b>Design:</b>	BROWN 13C-26HZ (wp02)		

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)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
BROWN 13C-35HZ BHL	0.00	0.00	7,463.00	5,099.25	43.58	1,313,022.73	3,208,984.09	40.190224	-104.751942
- 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	
7,835.00	7,475.00	7"	7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,325.05	3,315.00	PARKMAN		0.00		
4,520.50	4,503.00	SUSSEX		0.00		
7,155.77	7,118.00	SHARON SPRINGS		0.00		
7,243.01	7,196.00	NIOBRARA A		0.00		
7,269.00	7,218.00	NIOBRARA B		0.00		
7,394.06	7,314.00	NIOBRARA C		0.00		
7,716.87	7,463.00	CODELL TL		0.00		
7,758.59	7,470.00	CODELL		0.00		
7,835.65	7,475.00	CODELL TL		0.00		

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	
1,820.08	1,819.41	-17.82	1.18	Start 5050.39 hold at 1820.08 MD	
6,870.47	6,838.32	-579.70	38.22	Start DLS 10.00 TFO -176.20	
7,836.11	7,475.00	-8.54	43.00	Start 5107.80 hold at 7836.11 MD	
12,943.91	7,463.00	5,099.25	43.58	TD at 12943.91	