

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_WEICHEL PAD**

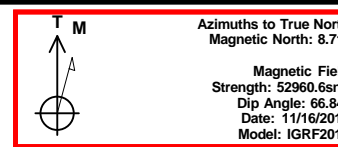
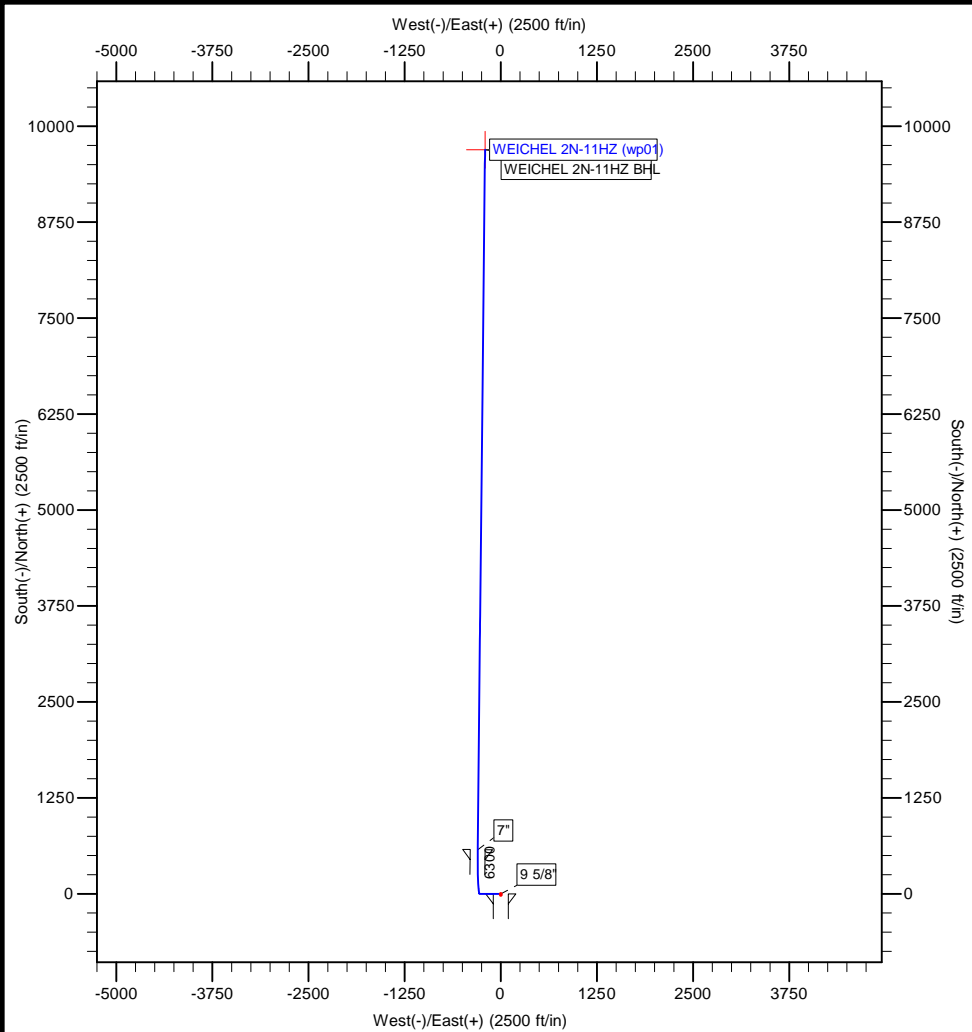
**WEICHEL 2N-11HZ PAD**

**WEICHEL 2N-11HZ**

**Plan: WEICHEL 2N-11HZ (wp01)**

## **Standard Planning Report**

**16 November, 2011**



Project: COLORADO NORTHERN ZONE - 83  
 Site: WELD WEICHEL PAD  
 Well: WEICHEL 2N-11HZ PAD  
 Wellbore: WEICHEL 2N-11HZ  
 Section:  
 SHL:  
 Design: WEICHEL 2N-11HZ (wp01)  
 Latitude: 40.132566  
 Longitude: -104.627809  
 GL: 4882.00  
 KB: RKB + GL @ 4899.00ft

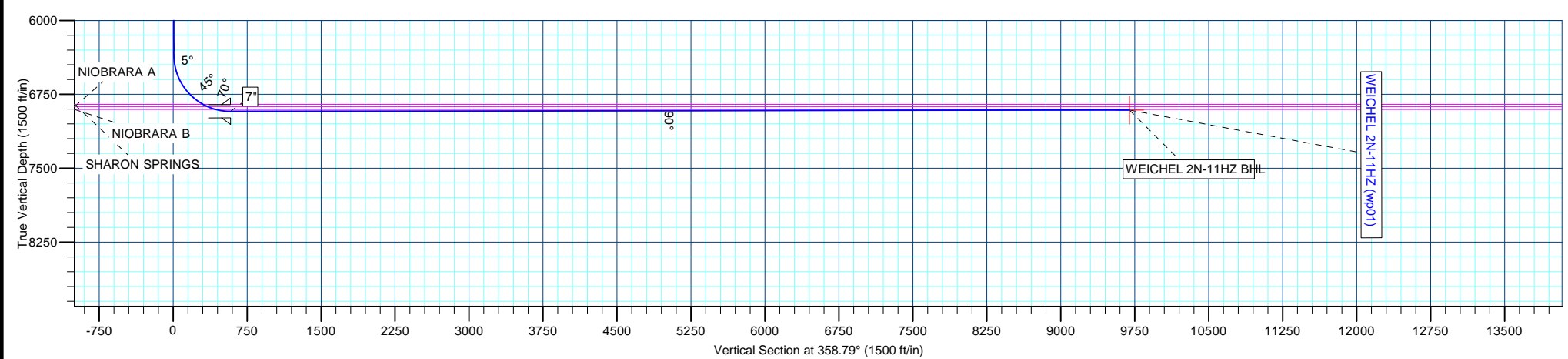
WELL DETAILS: WEICHEL 2N-11HZ PAD						
+N/-S	+E/-W	Northing	Ground Level: Easting	4882.00 Latitude	40.132566 Longitude	Slot
0.00	0.00	1292336.85	3243868.53	40.132566	-104.627809	

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
1252.10	3.04	270.18	1252.03	0.01	-4.04	2.00	270.18	0.10
6358.93	3.04	270.18	6351.66	0.89	-275.05	0.00	0.00	6.70
7260.01	90.09	0.55	6924.00	575.00	-300.00	10.00	90.36	581.21
7264.81	90.09	0.60	6923.99	579.80	-299.95	1.00	83.69	586.01
16379.04	90.09	0.60	6909.00	9693.52	-204.87	0.00	0.00	9695.69

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	Point
WEICHEL 2N-11HZ BHL	6909.00	9693.52	-204.87	40.159176	-104.628542	Point	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4024.00	4027.98	PARKMAN
4336.00	4340.42	SUSSEX
6853.00	6970.64	SHARON SPRINGS
6875.00	7020.26	NIOBRARA A
6903.00	7103.40	NIOBRARA B

CASING DETAILS			
TVD	MD	Name	Size
900.00	900.00	9 5/8"	9-5/8
6924.00	7260.01	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well WEICHEL 2N-11HZ PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4899.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4899.00ft
<b>Site:</b>	WELD_WEICHEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 2N-11HZ PAD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 2N-11HZ		
<b>Design:</b>	WEICHEL 2N-11HZ (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_WEICHEL PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,292,377.36 usft	<b>Latitude:</b> 40.132676
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,243,912.87 usft	<b>Longitude:</b> -104.627649
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.56 °

<b>Well</b>	WEICHEL 2N-11HZ PAD			
<b>Well Position</b>	<b>+N/-S</b>	-40.07 ft	<b>Northing:</b>	1,292,336.84 usft
	<b>+E/-W</b>	-44.74 ft	<b>Easting:</b>	3,243,868.53 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 4,882.00 ft

<b>Wellbore</b>	WEICHEL 2N-11HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/16/2011	8.71	66.84	52,961

<b>Design</b>	WEICHEL 2N-11HZ (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	358.79

<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	
1,252.10	3.04	270.18	1,252.03	0.01	-4.04	2.00	2.00	0.00	270.18	
6,358.93	3.04	270.18	6,351.66	0.89	-275.05	0.00	0.00	0.00	0.00	
7,260.01	90.09	0.55	6,924.00	575.00	-300.00	10.00	9.66	10.03	90.36	
7,264.81	90.09	0.60	6,923.99	579.80	-299.95	1.00	0.11	0.99	83.69	
16,379.04	90.09	0.60	6,909.00	9,693.52	-204.87	0.00	0.00	0.00	0.00	WEICHEL 2N-11HZ E

# Anadarko Petroleum Corp

## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4899.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4899.00ft
<b>Site:</b>	WELD_WEICHEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 2N-11HZ PAD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 2N-11HZ		
<b>Design:</b>	WEICHEL 2N-11HZ (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
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
1,200.00	2.00	270.18	1,199.98	0.01	-1.75	0.04	2.00	2.00	0.00
1,252.10	3.04	270.18	1,252.03	0.01	-4.04	0.10	2.00	2.00	0.00
<b>Start 5106.82 hold at 1252.10 MD</b>									
1,300.00	3.04	270.18	1,299.86	0.02	-6.58	0.16	0.00	0.00	0.00
1,400.00	3.04	270.18	1,399.72	0.04	-11.89	0.29	0.00	0.00	0.00
1,500.00	3.04	270.18	1,499.58	0.06	-17.19	0.42	0.00	0.00	0.00
1,600.00	3.04	270.18	1,599.44	0.07	-22.50	0.55	0.00	0.00	0.00
1,700.00	3.04	270.18	1,699.30	0.09	-27.81	0.68	0.00	0.00	0.00
1,800.00	3.04	270.18	1,799.16	0.11	-33.11	0.81	0.00	0.00	0.00
1,900.00	3.04	270.18	1,899.02	0.12	-38.42	0.94	0.00	0.00	0.00
2,000.00	3.04	270.18	1,998.87	0.14	-43.73	1.06	0.00	0.00	0.00
2,100.00	3.04	270.18	2,098.73	0.16	-49.03	1.19	0.00	0.00	0.00
2,200.00	3.04	270.18	2,198.59	0.18	-54.34	1.32	0.00	0.00	0.00
2,300.00	3.04	270.18	2,298.45	0.19	-59.65	1.45	0.00	0.00	0.00
2,400.00	3.04	270.18	2,398.31	0.21	-64.95	1.58	0.00	0.00	0.00
2,500.00	3.04	270.18	2,498.17	0.23	-70.26	1.71	0.00	0.00	0.00
2,600.00	3.04	270.18	2,598.03	0.24	-75.57	1.84	0.00	0.00	0.00
2,700.00	3.04	270.18	2,697.89	0.26	-80.87	1.97	0.00	0.00	0.00
2,800.00	3.04	270.18	2,797.75	0.28	-86.18	2.10	0.00	0.00	0.00
2,900.00	3.04	270.18	2,897.61	0.30	-91.49	2.23	0.00	0.00	0.00
3,000.00	3.04	270.18	2,997.47	0.31	-96.79	2.36	0.00	0.00	0.00
3,100.00	3.04	270.18	3,097.32	0.33	-102.10	2.49	0.00	0.00	0.00
3,200.00	3.04	270.18	3,197.18	0.35	-107.41	2.62	0.00	0.00	0.00
3,300.00	3.04	270.18	3,297.04	0.36	-112.72	2.75	0.00	0.00	0.00
3,400.00	3.04	270.18	3,396.90	0.38	-118.02	2.87	0.00	0.00	0.00
3,500.00	3.04	270.18	3,496.76	0.40	-123.33	3.00	0.00	0.00	0.00
3,600.00	3.04	270.18	3,596.62	0.41	-128.64	3.13	0.00	0.00	0.00
3,700.00	3.04	270.18	3,696.48	0.43	-133.94	3.26	0.00	0.00	0.00
3,800.00	3.04	270.18	3,796.34	0.45	-139.25	3.39	0.00	0.00	0.00
3,900.00	3.04	270.18	3,896.20	0.47	-144.56	3.52	0.00	0.00	0.00
4,000.00	3.04	270.18	3,996.06	0.48	-149.86	3.65	0.00	0.00	0.00
4,027.98	3.04	270.18	4,024.00	0.49	-151.35	3.69	0.00	0.00	0.00
<b>PARKMAN</b>									
4,100.00	3.04	270.18	4,095.92	0.50	-155.17	3.78	0.00	0.00	0.00
4,200.00	3.04	270.18	4,195.77	0.52	-160.48	3.91	0.00	0.00	0.00
4,300.00	3.04	270.18	4,295.63	0.53	-165.78	4.04	0.00	0.00	0.00
4,340.42	3.04	270.18	4,336.00	0.54	-167.93	4.09	0.00	0.00	0.00
<b>SUSSEX</b>									
4,400.00	3.04	270.18	4,395.49	0.55	-171.09	4.17	0.00	0.00	0.00
4,500.00	3.04	270.18	4,495.35	0.57	-176.40	4.30	0.00	0.00	0.00
4,600.00	3.04	270.18	4,595.21	0.59	-181.70	4.43	0.00	0.00	0.00
4,700.00	3.04	270.18	4,695.07	0.60	-187.01	4.55	0.00	0.00	0.00
4,800.00	3.04	270.18	4,794.93	0.62	-192.32	4.68	0.00	0.00	0.00
4,900.00	3.04	270.18	4,894.79	0.64	-197.62	4.81	0.00	0.00	0.00
5,000.00	3.04	270.18	4,994.65	0.65	-202.93	4.94	0.00	0.00	0.00
5,100.00	3.04	270.18	5,094.51	0.67	-208.24	5.07	0.00	0.00	0.00
5,200.00	3.04	270.18	5,194.37	0.69	-213.54	5.20	0.00	0.00	0.00
5,300.00	3.04	270.18	5,294.22	0.71	-218.85	5.33	0.00	0.00	0.00
5,400.00	3.04	270.18	5,394.08	0.72	-224.16	5.46	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 @ 4899.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4899.00ft
<b>Site:</b>	WELD_WEICHEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 2N-11HZ PAD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 2N-11HZ		
<b>Design:</b>	WEICHEL 2N-11HZ (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)
5,500.00	3.04	270.18	5,493.94	0.74	-229.47	5.59	0.00	0.00	0.00
5,600.00	3.04	270.18	5,593.80	0.76	-234.77	5.72	0.00	0.00	0.00
5,700.00	3.04	270.18	5,693.66	0.77	-240.08	5.85	0.00	0.00	0.00
5,800.00	3.04	270.18	5,793.52	0.79	-245.39	5.98	0.00	0.00	0.00
5,900.00	3.04	270.18	5,893.38	0.81	-250.69	6.11	0.00	0.00	0.00
6,000.00	3.04	270.18	5,993.24	0.83	-256.00	6.23	0.00	0.00	0.00
6,100.00	3.04	270.18	6,093.10	0.84	-261.31	6.36	0.00	0.00	0.00
6,200.00	3.04	270.18	6,192.96	0.86	-266.61	6.49	0.00	0.00	0.00
6,300.00	3.04	270.18	6,292.82	0.88	-271.92	6.62	0.00	0.00	0.00
6,358.93	3.04	270.18	6,351.66	0.89	-275.05	6.70	0.00	0.00	0.00
Start DLS 10.00 TFO 90.36									
6,400.00	5.09	323.95	6,392.64	2.37	-277.21	8.22	10.00	5.00	130.91
6,500.00	14.41	348.61	6,491.12	18.19	-282.29	24.15	10.00	9.31	24.65
6,600.00	24.27	353.78	6,585.37	50.90	-286.99	56.95	10.00	9.86	5.17
6,700.00	34.21	356.06	6,672.52	99.49	-291.16	105.62	10.00	9.94	2.29
6,800.00	44.17	357.41	6,749.93	162.50	-294.68	168.69	10.00	9.96	1.35
6,816.90	45.86	357.59	6,761.88	174.44	-295.20	180.64	10.00	9.97	1.06
WEICHEL 2N-11HZ heel									
6,900.00	54.15	358.34	6,815.25	238.01	-297.43	244.24	10.00	9.98	0.91
6,970.64	61.20	358.87	6,853.00	297.64	-298.87	303.89	10.00	9.98	0.75
SHARON SPRINGS									
7,000.00	64.13	359.07	6,866.48	323.72	-299.33	329.97	10.00	9.98	0.67
7,020.26	66.15	359.20	6,875.00	342.10	-299.61	348.35	10.00	9.98	0.64
NIOBRARA A									
7,100.00	74.11	359.68	6,902.08	417.02	-300.34	423.28	10.00	9.98	0.60
7,103.40	74.45	359.70	6,903.00	420.30	-300.36	426.55	10.00	9.98	0.57
NIOBRARA B									
7,200.00	84.10	0.23	6,920.96	515.10	-300.41	521.33	10.00	9.99	0.55
7,260.01	90.09	0.55	6,924.00	575.00	-300.00	581.21	10.00	9.99	0.53
Start DLS 1.00 TFO 83.69 - 7"									
7,264.81	90.09	0.60	6,923.99	579.80	-299.95	586.01	1.00	0.11	0.99
Start 9114.23 hold at 7264.81 MD									
7,300.00	90.09	0.60	6,923.93	614.99	-299.58	621.18	0.00	0.00	0.00
7,400.00	90.09	0.60	6,923.77	714.98	-298.54	721.13	0.00	0.00	0.00
7,500.00	90.09	0.60	6,923.61	814.98	-297.50	821.08	0.00	0.00	0.00
7,600.00	90.09	0.60	6,923.44	914.97	-296.46	921.03	0.00	0.00	0.00
7,700.00	90.09	0.60	6,923.28	1,014.97	-295.41	1,020.98	0.00	0.00	0.00
7,800.00	90.09	0.60	6,923.11	1,114.96	-294.37	1,120.93	0.00	0.00	0.00
7,900.00	90.09	0.60	6,922.95	1,214.95	-293.33	1,220.88	0.00	0.00	0.00
8,000.00	90.09	0.60	6,922.78	1,314.95	-292.28	1,320.83	0.00	0.00	0.00
8,100.00	90.09	0.60	6,922.62	1,414.94	-291.24	1,420.78	0.00	0.00	0.00
8,200.00	90.09	0.60	6,922.45	1,514.94	-290.20	1,520.73	0.00	0.00	0.00
8,300.00	90.09	0.60	6,922.29	1,614.93	-289.15	1,620.68	0.00	0.00	0.00
8,400.00	90.09	0.60	6,922.13	1,714.93	-288.11	1,720.63	0.00	0.00	0.00
8,500.00	90.09	0.60	6,921.96	1,814.92	-287.07	1,820.58	0.00	0.00	0.00
8,600.00	90.09	0.60	6,921.80	1,914.92	-286.02	1,920.53	0.00	0.00	0.00
8,700.00	90.09	0.60	6,921.63	2,014.91	-284.98	2,020.48	0.00	0.00	0.00
8,800.00	90.09	0.60	6,921.47	2,114.90	-283.94	2,120.43	0.00	0.00	0.00
8,900.00	90.09	0.60	6,921.30	2,214.90	-282.89	2,220.38	0.00	0.00	0.00
9,000.00	90.09	0.60	6,921.14	2,314.89	-281.85	2,320.33	0.00	0.00	0.00
9,100.00	90.09	0.60	6,920.97	2,414.89	-280.81	2,420.28	0.00	0.00	0.00
9,200.00	90.09	0.60	6,920.81	2,514.88	-279.76	2,520.23	0.00	0.00	0.00
9,300.00	90.09	0.60	6,920.64	2,614.88	-278.72	2,620.18	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well WEICHEL 2N-11HZ PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4899.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4899.00ft
<b>Site:</b>	WELD_WEICHEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 2N-11HZ PAD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 2N-11HZ		
<b>Design:</b>	WEICHEL 2N-11HZ (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)
9,400.00	90.09	0.60	6,920.48	2,714.87	-277.68	2,720.13	0.00	0.00	0.00
9,500.00	90.09	0.60	6,920.32	2,814.87	-276.63	2,820.08	0.00	0.00	0.00
9,600.00	90.09	0.60	6,920.15	2,914.86	-275.59	2,920.03	0.00	0.00	0.00
9,700.00	90.09	0.60	6,919.99	3,014.85	-274.55	3,019.98	0.00	0.00	0.00
9,800.00	90.09	0.60	6,919.82	3,114.85	-273.51	3,119.93	0.00	0.00	0.00
9,900.00	90.09	0.60	6,919.66	3,214.84	-272.46	3,219.88	0.00	0.00	0.00
10,000.00	90.09	0.60	6,919.49	3,314.84	-271.42	3,319.83	0.00	0.00	0.00
10,100.00	90.09	0.60	6,919.33	3,414.83	-270.38	3,419.78	0.00	0.00	0.00
10,200.00	90.09	0.60	6,919.16	3,514.83	-269.33	3,519.73	0.00	0.00	0.00
10,300.00	90.09	0.60	6,919.00	3,614.82	-268.29	3,619.68	0.00	0.00	0.00
10,400.00	90.09	0.60	6,918.84	3,714.82	-267.25	3,719.63	0.00	0.00	0.00
10,500.00	90.09	0.60	6,918.67	3,814.81	-266.20	3,819.58	0.00	0.00	0.00
10,600.00	90.09	0.60	6,918.51	3,914.80	-265.16	3,919.53	0.00	0.00	0.00
10,700.00	90.09	0.60	6,918.34	4,014.80	-264.12	4,019.48	0.00	0.00	0.00
10,800.00	90.09	0.60	6,918.18	4,114.79	-263.07	4,119.43	0.00	0.00	0.00
10,900.00	90.09	0.60	6,918.01	4,214.79	-262.03	4,219.38	0.00	0.00	0.00
11,000.00	90.09	0.60	6,917.85	4,314.78	-260.99	4,319.33	0.00	0.00	0.00
11,100.00	90.09	0.60	6,917.68	4,414.78	-259.94	4,419.28	0.00	0.00	0.00
11,200.00	90.09	0.60	6,917.52	4,514.77	-258.90	4,519.23	0.00	0.00	0.00
11,300.00	90.09	0.60	6,917.35	4,614.77	-257.86	4,619.18	0.00	0.00	0.00
11,400.00	90.09	0.60	6,917.19	4,714.76	-256.81	4,719.13	0.00	0.00	0.00
11,500.00	90.09	0.60	6,917.03	4,814.75	-255.77	4,819.08	0.00	0.00	0.00
11,600.00	90.09	0.60	6,916.86	4,914.75	-254.73	4,919.03	0.00	0.00	0.00
11,700.00	90.09	0.60	6,916.70	5,014.74	-253.68	5,018.98	0.00	0.00	0.00
11,800.00	90.09	0.60	6,916.53	5,114.74	-252.64	5,118.93	0.00	0.00	0.00
11,900.00	90.09	0.60	6,916.37	5,214.73	-251.60	5,218.88	0.00	0.00	0.00
12,000.00	90.09	0.60	6,916.20	5,314.73	-250.56	5,318.83	0.00	0.00	0.00
12,100.00	90.09	0.60	6,916.04	5,414.72	-249.51	5,418.78	0.00	0.00	0.00
12,200.00	90.09	0.60	6,915.87	5,514.71	-248.47	5,518.73	0.00	0.00	0.00
12,300.00	90.09	0.60	6,915.71	5,614.71	-247.43	5,618.68	0.00	0.00	0.00
12,400.00	90.09	0.60	6,915.55	5,714.70	-246.38	5,718.63	0.00	0.00	0.00
12,500.00	90.09	0.60	6,915.38	5,814.70	-245.34	5,818.58	0.00	0.00	0.00
12,600.00	90.09	0.60	6,915.22	5,914.69	-244.30	5,918.53	0.00	0.00	0.00
12,700.00	90.09	0.60	6,915.05	6,014.69	-243.25	6,018.48	0.00	0.00	0.00
12,800.00	90.09	0.60	6,914.89	6,114.68	-242.21	6,118.43	0.00	0.00	0.00
12,900.00	90.09	0.60	6,914.72	6,214.68	-241.17	6,218.38	0.00	0.00	0.00
13,000.00	90.09	0.60	6,914.56	6,314.67	-240.12	6,318.33	0.00	0.00	0.00
13,100.00	90.09	0.60	6,914.39	6,414.66	-239.08	6,418.28	0.00	0.00	0.00
13,200.00	90.09	0.60	6,914.23	6,514.66	-238.04	6,518.23	0.00	0.00	0.00
13,300.00	90.09	0.60	6,914.06	6,614.65	-236.99	6,618.18	0.00	0.00	0.00
13,400.00	90.09	0.60	6,913.90	6,714.65	-235.95	6,718.13	0.00	0.00	0.00
13,500.00	90.09	0.60	6,913.74	6,814.64	-234.91	6,818.08	0.00	0.00	0.00
13,600.00	90.09	0.60	6,913.57	6,914.64	-233.86	6,918.03	0.00	0.00	0.00
13,700.00	90.09	0.60	6,913.41	7,014.63	-232.82	7,017.98	0.00	0.00	0.00
13,800.00	90.09	0.60	6,913.24	7,114.63	-231.78	7,117.93	0.00	0.00	0.00
13,900.00	90.09	0.60	6,913.08	7,214.62	-230.73	7,217.88	0.00	0.00	0.00
14,000.00	90.09	0.60	6,912.91	7,314.61	-229.69	7,317.83	0.00	0.00	0.00
14,100.00	90.09	0.60	6,912.75	7,414.61	-228.65	7,417.78	0.00	0.00	0.00
14,200.00	90.09	0.60	6,912.58	7,514.60	-227.61	7,517.73	0.00	0.00	0.00
14,300.00	90.09	0.60	6,912.42	7,614.60	-226.56	7,617.69	0.00	0.00	0.00
14,400.00	90.09	0.60	6,912.26	7,714.59	-225.52	7,717.64	0.00	0.00	0.00
14,500.00	90.09	0.60	6,912.09	7,814.59	-224.48	7,817.59	0.00	0.00	0.00
14,600.00	90.09	0.60	6,911.93	7,914.58	-223.43	7,917.54	0.00	0.00	0.00
14,700.00	90.09	0.60	6,911.76	8,014.58	-222.39	8,017.49	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well WEICHEL 2N-11HZ PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4899.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4899.00ft
<b>Site:</b>	WELD_WEICHEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 2N-11HZ PAD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 2N-11HZ		
<b>Design:</b>	WEICHEL 2N-11HZ (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)
14,800.00	90.09	0.60	6,911.60	8,114.57	-221.35	8,117.44	0.00	0.00	0.00
14,900.00	90.09	0.60	6,911.43	8,214.56	-220.30	8,217.39	0.00	0.00	0.00
15,000.00	90.09	0.60	6,911.27	8,314.56	-219.26	8,317.34	0.00	0.00	0.00
15,100.00	90.09	0.60	6,911.10	8,414.55	-218.22	8,417.29	0.00	0.00	0.00
15,200.00	90.09	0.60	6,910.94	8,514.55	-217.17	8,517.24	0.00	0.00	0.00
15,300.00	90.09	0.60	6,910.78	8,614.54	-216.13	8,617.19	0.00	0.00	0.00
15,400.00	90.09	0.60	6,910.61	8,714.54	-215.09	8,717.14	0.00	0.00	0.00
15,500.00	90.09	0.60	6,910.45	8,814.53	-214.04	8,817.09	0.00	0.00	0.00
15,600.00	90.09	0.60	6,910.28	8,914.53	-213.00	8,917.04	0.00	0.00	0.00
15,700.00	90.09	0.60	6,910.12	9,014.52	-211.96	9,016.99	0.00	0.00	0.00
15,800.00	90.09	0.60	6,909.95	9,114.51	-210.91	9,116.94	0.00	0.00	0.00
15,900.00	90.09	0.60	6,909.79	9,214.51	-209.87	9,216.89	0.00	0.00	0.00
16,000.00	90.09	0.60	6,909.62	9,314.50	-208.83	9,316.84	0.00	0.00	0.00
16,100.00	90.09	0.60	6,909.46	9,414.50	-207.78	9,416.79	0.00	0.00	0.00
16,200.00	90.09	0.60	6,909.29	9,514.49	-206.74	9,516.74	0.00	0.00	0.00
16,300.00	90.09	0.60	6,909.13	9,614.49	-205.70	9,616.69	0.00	0.00	0.00
16,379.04	90.09	0.60	6,909.00	9,693.52	-204.87	9,695.69	0.00	0.00	0.00
TD at 16379.04 - WEICHEL 2N-11HZ BHL									

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									
WEICHEL 2N-11HZ BHI	0.00	0.00	6,909.00	9,693.52	-204.87	1,302,027.86	3,243,568.33	40.159176	-104.628542
- 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	
7,260.01	6,924.00	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,027.98	4,024.00	PARKMAN		0.00	
4,340.42	4,336.00	SUSSEX		0.00	
6,970.64	6,853.00	SHARON SPRINGS		0.00	
7,020.26	6,875.00	NIOBRARA A		0.00	
7,103.40	6,903.00	NIOBRARA B		0.00	

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well WEICHEL 2N-11HZ PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4899.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4899.00ft
<b>Site:</b>	WELD_WEICHEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	WEICHEL 2N-11HZ PAD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	WEICHEL 2N-11HZ		
<b>Design:</b>	WEICHEL 2N-11HZ (wp01)		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,100.00	1,100.00	0.00	0.00	Start Build 2.00	
1,252.10	1,252.03	0.01	-4.04	Start 5106.82 hold at 1252.10 MD	
6,358.93	6,351.66	0.89	-275.05	Start DLS 10.00 TFO 90.36	
7,260.01	6,924.00	575.00	-300.00	Start DLS 1.00 TFO 83.69	
7,264.81	6,923.99	579.80	-299.95	Start 9114.23 hold at 7264.81 MD	
16,379.04	6,909.00	9,693.52	-204.87	TD at 16379.04	