

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_PALYO 29-11HZ Pad**

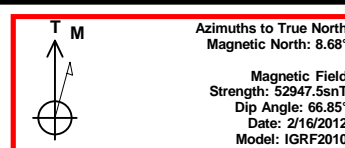
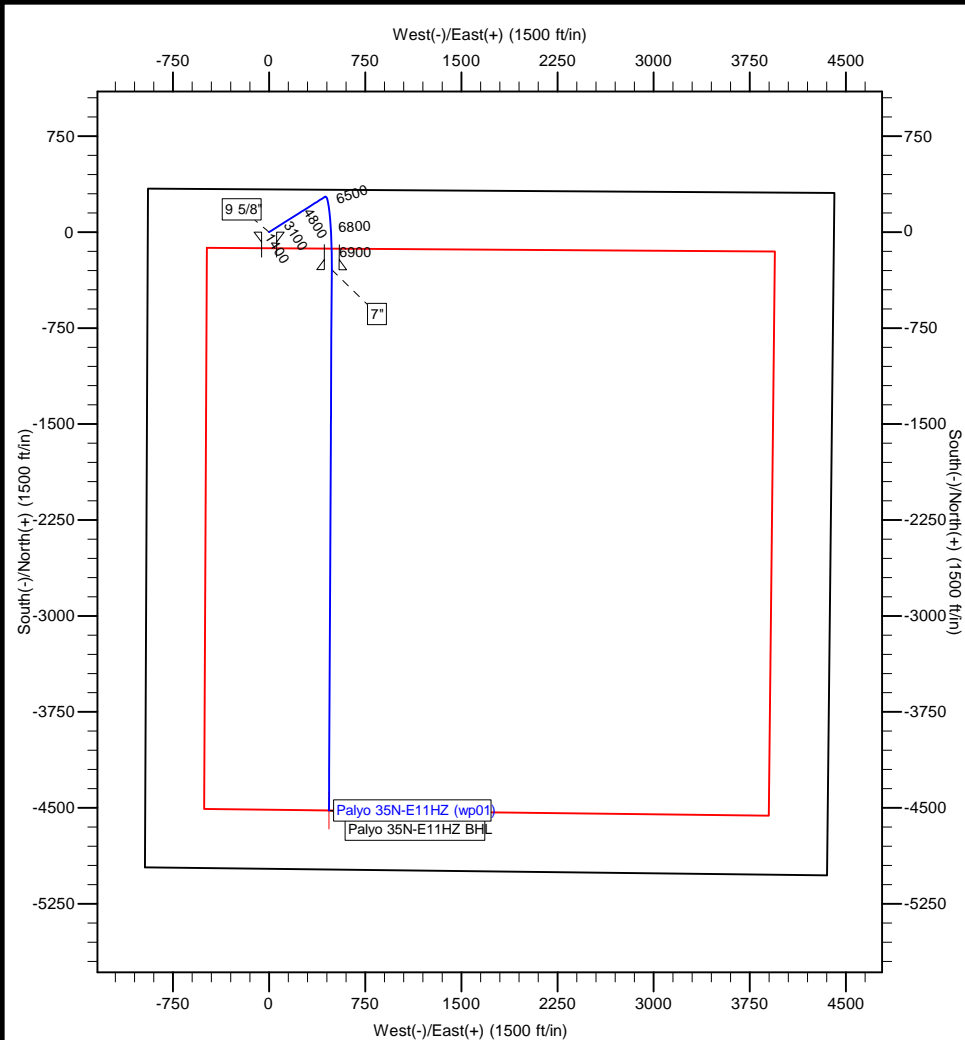
**Palyo 35N-E11HZ**

**Palyo 35N-E11HZ**

**Plan: Palyo 35N-E11HZ (wp01)**

## **Standard Planning Report**

**21 February, 2012**



Project: COLORADO NORTHERN ZONE - 83  
Site: WELD\_PALYO 29-11HZ Pad  
Well: Palyo 35N-E11HZ  
Wellbore: Palyo 35N-E11HZ  
Section:  
SHL:  
Design: Palyo 35N-E11HZ (wp01)  
Latitude: 40.159566  
Longitude: -104.637068  
GL: 4850.00  
KB: RKB + GL @ 4866.00ft

#### WELL DETAILS: Palyo 35N-E11HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	4850.00 Latitude 40.159566	Longitude -104.637068	Slot
0.00	0.00	1302146.62	3241184.04			

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00
1603.31	6.07	57.71	1602.74	8.57	13.56	2.00	57.71	-7.13
6340.95	6.07	57.71	6313.86	276.02	436.80	0.00	0.00	-229.73
7272.30	89.87	180.27	6917.00	-295.00	488.00	10.00	122.43	343.53
7274.39	89.86	180.29	6917.00	-297.09	487.99	1.00	115.01	345.61
1499.18	89.86	180.29	6927.00	-4521.82	466.57	0.00	0.00	4545.82

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

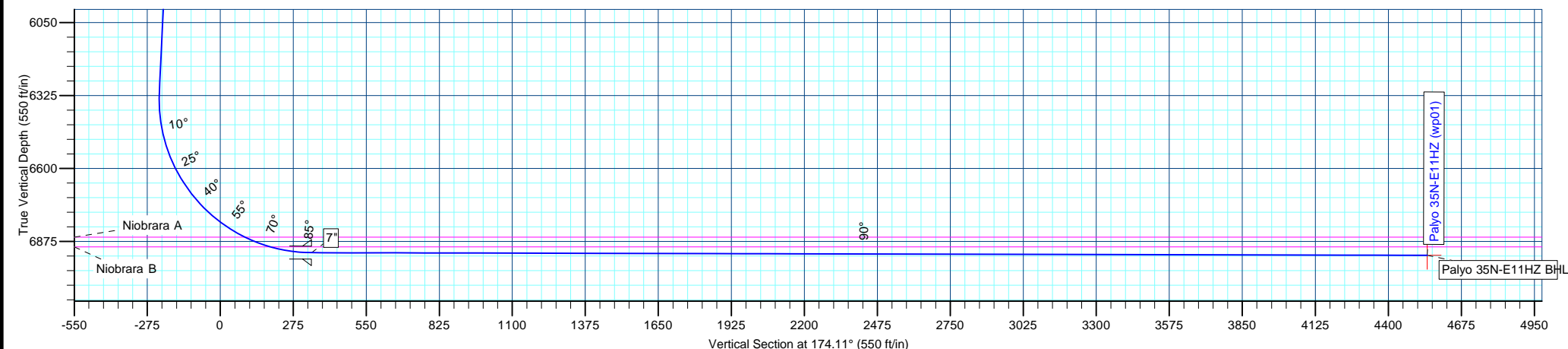
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Palyo 35N-E11HZ BHL	6927.00	-4521.82	466.57	40.147153	-104.635399	Point

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3935.00	3948.70	Parkman
4425.00	4441.46	Sussex
5424.00	5446.08	Sharon Springs
6859.00	7013.01	Niobrara A
6895.00	7113.96	Niobrara B

#### CASING DETAILS

TVD	MD	Name	Size
850.00	850.00	9 5/8"	9-5/8
6917.00	7272.30	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Palyo 35N-E11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4866.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4866.00ft
<b>Site:</b>	WELD_PALYO 29-11HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	Palyo 35N-E11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Palyo 35N-E11HZ		
<b>Design:</b>	Palyo 35N-E11HZ (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		

Site		WELD_PALYO 29-11HZ Pad			
Site Position:		Northing:	1,302,146.62 usft	Latitude:	40.159566
From:	Lat/Long	Easting:	3,241,184.04 usft	Longitude:	-104.637068
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.56 °

Well	Palyo 35N-E11HZ					
Well Position	+N-S	0.00 ft	Northing:	1,302,146.62 usft	Latitude:	40.159566
	+E-W	0.00 ft	Easting:	3,241,184.04 usft	Longitude:	-104.637068
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,850.00 ft

<b>Wellbore</b>	Palyo 35N-E11HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	2/16/2012	8.68	66.85	52,948

<b>Design</b>	Palyo 35N-E11HZ (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	174.11

<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	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,603.31	6.07	57.71	1,602.74	8.57	13.56	2.00	2.00	0.00	57.71	
6,340.95	6.07	57.71	6,313.86	276.02	436.80	0.00	0.00	0.00	0.00	
7,272.30	89.87	180.27	6,917.00	-295.00	488.00	10.00	9.00	13.16	122.43	
7,274.39	89.86	180.29	6,917.00	-297.09	487.99	1.00	-0.42	0.91	115.01	
11,499.18	89.86	180.29	6,927.00	-4,521.82	466.57	0.00	0.00	0.00	0.00	Palyo 35N-E11HZ BH

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Palyo 35N-E11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4866.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4866.00ft
<b>Site:</b>	WELD_PALYO 29-11HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	Palyo 35N-E11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Palyo 35N-E11HZ		
<b>Design:</b>	Palyo 35N-E11HZ (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
850.00	0.00	0.00	850.00	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	2.00	57.71	1,399.98	0.93	1.48	-0.78	2.00	2.00	0.00
1,500.00	4.00	57.71	1,499.84	3.73	5.90	-3.10	2.00	2.00	0.00
1,600.00	6.00	57.71	1,599.45	8.38	13.27	-6.98	2.00	2.00	0.00
1,603.31	6.07	57.71	1,602.74	8.57	13.56	-7.13	2.00	2.00	0.00
1,700.00	6.07	57.71	1,698.89	14.03	22.20	-11.68	0.00	0.00	0.00
1,800.00	6.07	57.71	1,798.33	19.67	31.13	-16.37	0.00	0.00	0.00
1,900.00	6.07	57.71	1,897.77	25.32	40.07	-21.07	0.00	0.00	0.00
2,000.00	6.07	57.71	1,997.21	30.96	49.00	-25.77	0.00	0.00	0.00
2,100.00	6.07	57.71	2,096.65	36.61	57.93	-30.47	0.00	0.00	0.00
2,200.00	6.07	57.71	2,196.09	42.25	66.87	-35.17	0.00	0.00	0.00
2,300.00	6.07	57.71	2,295.53	47.90	75.80	-39.87	0.00	0.00	0.00
2,400.00	6.07	57.71	2,394.97	53.54	84.73	-44.56	0.00	0.00	0.00
2,500.00	6.07	57.71	2,494.41	59.19	93.67	-49.26	0.00	0.00	0.00
2,600.00	6.07	57.71	2,593.85	64.83	102.60	-53.96	0.00	0.00	0.00
2,700.00	6.07	57.71	2,693.29	70.48	111.53	-58.66	0.00	0.00	0.00
2,800.00	6.07	57.71	2,792.73	76.12	120.47	-63.36	0.00	0.00	0.00
2,900.00	6.07	57.71	2,892.17	81.77	129.40	-68.06	0.00	0.00	0.00
3,000.00	6.07	57.71	2,991.61	87.42	138.34	-72.76	0.00	0.00	0.00
3,100.00	6.07	57.71	3,091.05	93.06	147.27	-77.45	0.00	0.00	0.00
3,200.00	6.07	57.71	3,190.49	98.71	156.20	-82.15	0.00	0.00	0.00
3,300.00	6.07	57.71	3,289.93	104.35	165.14	-86.85	0.00	0.00	0.00
3,400.00	6.07	57.71	3,389.37	110.00	174.07	-91.55	0.00	0.00	0.00
3,500.00	6.07	57.71	3,488.81	115.64	183.00	-96.25	0.00	0.00	0.00
3,600.00	6.07	57.71	3,588.25	121.29	191.94	-100.95	0.00	0.00	0.00
3,700.00	6.07	57.71	3,687.69	126.93	200.87	-105.64	0.00	0.00	0.00
3,800.00	6.07	57.71	3,787.13	132.58	209.80	-110.34	0.00	0.00	0.00
3,900.00	6.07	57.71	3,886.57	138.22	218.74	-115.04	0.00	0.00	0.00
3,948.70	6.07	57.71	3,935.00	140.97	223.09	-117.33	0.00	0.00	0.00
Parkman									
4,000.00	6.07	57.71	3,986.01	143.87	227.67	-119.74	0.00	0.00	0.00
4,100.00	6.07	57.71	4,085.45	149.51	236.61	-124.44	0.00	0.00	0.00
4,200.00	6.07	57.71	4,184.89	155.16	245.54	-129.14	0.00	0.00	0.00
4,300.00	6.07	57.71	4,284.33	160.80	254.47	-133.84	0.00	0.00	0.00
4,400.00	6.07	57.71	4,383.77	166.45	263.41	-138.53	0.00	0.00	0.00
4,441.46	6.07	57.71	4,425.00	168.79	267.11	-140.48	0.00	0.00	0.00
Sussex									
4,500.00	6.07	57.71	4,483.21	172.09	272.34	-143.23	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Palyo 35N-E11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4866.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4866.00ft
<b>Site:</b>	WELD_PALYO 29-11HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	Palyo 35N-E11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Palyo 35N-E11HZ		
<b>Design:</b>	Palyo 35N-E11HZ (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	6.07	57.71	4,582.65	177.74	281.27	-147.93	0.00	0.00	0.00
4,700.00	6.07	57.71	4,682.09	183.38	290.21	-152.63	0.00	0.00	0.00
4,800.00	6.07	57.71	4,781.53	189.03	299.14	-157.33	0.00	0.00	0.00
4,900.00	6.07	57.71	4,880.97	194.67	308.07	-162.03	0.00	0.00	0.00
5,000.00	6.07	57.71	4,980.41	200.32	317.01	-166.72	0.00	0.00	0.00
5,100.00	6.07	57.71	5,079.85	205.96	325.94	-171.42	0.00	0.00	0.00
5,200.00	6.07	57.71	5,179.29	211.61	334.87	-176.12	0.00	0.00	0.00
5,300.00	6.07	57.71	5,278.73	217.25	343.81	-180.82	0.00	0.00	0.00
5,400.00	6.07	57.71	5,378.17	222.90	352.74	-185.52	0.00	0.00	0.00
5,446.08	6.07	57.71	5,424.00	225.50	356.86	-187.68	0.00	0.00	0.00
Sharon Springs									
5,500.00	6.07	57.71	5,477.61	228.55	361.68	-190.22	0.00	0.00	0.00
5,600.00	6.07	57.71	5,577.05	234.19	370.61	-194.92	0.00	0.00	0.00
5,700.00	6.07	57.71	5,676.49	239.84	379.54	-199.61	0.00	0.00	0.00
5,800.00	6.07	57.71	5,775.93	245.48	388.48	-204.31	0.00	0.00	0.00
5,900.00	6.07	57.71	5,875.37	251.13	397.41	-209.01	0.00	0.00	0.00
6,000.00	6.07	57.71	5,974.81	256.77	406.34	-213.71	0.00	0.00	0.00
6,100.00	6.07	57.71	6,074.25	262.42	415.28	-218.41	0.00	0.00	0.00
6,200.00	6.07	57.71	6,173.69	268.06	424.21	-223.11	0.00	0.00	0.00
6,300.00	6.07	57.71	6,273.13	273.71	433.14	-227.80	0.00	0.00	0.00
6,340.95	6.07	57.71	6,313.86	276.02	436.80	-229.73	0.00	0.00	0.00
6,400.00	5.76	117.65	6,372.64	276.31	442.07	-229.48	10.00	-0.52	101.51
6,500.00	13.62	158.60	6,471.23	262.98	450.83	-215.32	10.00	7.87	40.95
6,600.00	23.18	168.21	6,566.03	232.67	459.17	-184.32	10.00	9.56	9.62
6,700.00	33.00	172.36	6,654.15	186.30	466.84	-137.40	10.00	9.81	4.14
6,800.00	42.89	174.75	6,732.92	125.27	473.59	-76.00	10.00	9.89	2.40
6,900.00	52.82	176.39	6,799.94	51.44	479.23	-1.98	10.00	9.93	1.64
7,000.00	62.76	177.64	6,853.18	-32.95	483.58	82.41	10.00	9.94	1.25
7,013.01	64.06	177.79	6,859.00	-44.58	484.04	94.02	10.00	9.95	1.12
Niobrara A									
7,100.00	72.71	178.69	6,891.02	-125.33	486.51	174.61	10.00	9.95	1.03
7,113.96	74.10	178.82	6,895.00	-138.71	486.80	187.94	10.00	9.96	0.97
Niobrara B									
7,200.00	82.67	179.62	6,912.30	-222.90	487.94	271.81	10.00	9.96	0.93
7,272.30	89.87	180.27	6,917.00	-295.00	488.00	343.53	10.00	9.96	0.90
7"									
7,274.39	89.86	180.29	6,917.00	-297.09	487.99	345.61	1.00	-0.42	0.91
7,300.00	89.86	180.29	6,917.07	-322.70	487.86	371.07	0.00	0.00	0.00
7,400.00	89.86	180.29	6,917.30	-422.70	487.35	470.49	0.00	0.00	0.00
7,500.00	89.86	180.29	6,917.54	-522.70	486.85	569.91	0.00	0.00	0.00
7,600.00	89.86	180.29	6,917.78	-622.70	486.34	669.32	0.00	0.00	0.00
7,700.00	89.86	180.29	6,918.01	-722.69	485.83	768.74	0.00	0.00	0.00
7,800.00	89.86	180.29	6,918.25	-822.69	485.32	868.16	0.00	0.00	0.00
7,900.00	89.86	180.29	6,918.49	-922.69	484.82	967.58	0.00	0.00	0.00
8,000.00	89.86	180.29	6,918.72	-1,022.69	484.31	1,067.00	0.00	0.00	0.00
8,100.00	89.86	180.29	6,918.96	-1,122.69	483.80	1,166.42	0.00	0.00	0.00
8,200.00	89.86	180.29	6,919.19	-1,222.69	483.30	1,265.83	0.00	0.00	0.00
8,300.00	89.86	180.29	6,919.43	-1,322.69	482.79	1,365.25	0.00	0.00	0.00
8,400.00	89.86	180.29	6,919.67	-1,422.68	482.28	1,464.67	0.00	0.00	0.00
8,500.00	89.86	180.29	6,919.90	-1,522.68	481.78	1,564.09	0.00	0.00	0.00
8,600.00	89.86	180.29	6,920.14	-1,622.68	481.27	1,663.51	0.00	0.00	0.00
8,700.00	89.86	180.29	6,920.38	-1,722.68	480.76	1,762.93	0.00	0.00	0.00
8,800.00	89.86	180.29	6,920.61	-1,822.68	480.25	1,862.34	0.00	0.00	0.00
8,900.00	89.86	180.29	6,920.85	-1,922.68	479.75	1,961.76	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Palyo 35N-E11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4866.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4866.00ft
<b>Site:</b>	WELD_PALYO 29-11HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	Palyo 35N-E11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Palyo 35N-E11HZ		
<b>Design:</b>	Palyo 35N-E11HZ (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)
9,000.00	89.86	180.29	6,921.09	-2,022.67	479.24	2,061.18	0.00	0.00	0.00
9,100.00	89.86	180.29	6,921.32	-2,122.67	478.73	2,160.60	0.00	0.00	0.00
9,200.00	89.86	180.29	6,921.56	-2,222.67	478.23	2,260.02	0.00	0.00	0.00
9,300.00	89.86	180.29	6,921.80	-2,322.67	477.72	2,359.43	0.00	0.00	0.00
9,400.00	89.86	180.29	6,922.03	-2,422.67	477.21	2,458.85	0.00	0.00	0.00
9,500.00	89.86	180.29	6,922.27	-2,522.67	476.71	2,558.27	0.00	0.00	0.00
9,600.00	89.86	180.29	6,922.51	-2,622.66	476.20	2,657.69	0.00	0.00	0.00
9,700.00	89.86	180.29	6,922.74	-2,722.66	475.69	2,757.11	0.00	0.00	0.00
9,800.00	89.86	180.29	6,922.98	-2,822.66	475.18	2,856.53	0.00	0.00	0.00
9,900.00	89.86	180.29	6,923.22	-2,922.66	474.68	2,955.94	0.00	0.00	0.00
10,000.00	89.86	180.29	6,923.45	-3,022.66	474.17	3,055.36	0.00	0.00	0.00
10,100.00	89.86	180.29	6,923.69	-3,122.66	473.66	3,154.78	0.00	0.00	0.00
10,200.00	89.86	180.29	6,923.93	-3,222.66	473.16	3,254.20	0.00	0.00	0.00
10,300.00	89.86	180.29	6,924.16	-3,322.65	472.65	3,353.62	0.00	0.00	0.00
10,400.00	89.86	180.29	6,924.40	-3,422.65	472.14	3,453.04	0.00	0.00	0.00
10,500.00	89.86	180.29	6,924.64	-3,522.65	471.63	3,552.45	0.00	0.00	0.00
10,600.00	89.86	180.29	6,924.87	-3,622.65	471.13	3,651.87	0.00	0.00	0.00
10,700.00	89.86	180.29	6,925.11	-3,722.65	470.62	3,751.29	0.00	0.00	0.00
10,800.00	89.86	180.29	6,925.35	-3,822.65	470.11	3,850.71	0.00	0.00	0.00
10,900.00	89.86	180.29	6,925.58	-3,922.64	469.61	3,950.13	0.00	0.00	0.00
11,000.00	89.86	180.29	6,925.82	-4,022.64	469.10	4,049.55	0.00	0.00	0.00
11,100.00	89.86	180.29	6,926.06	-4,122.64	468.59	4,148.96	0.00	0.00	0.00
11,200.00	89.86	180.29	6,926.29	-4,222.64	468.09	4,248.38	0.00	0.00	0.00
11,300.00	89.86	180.29	6,926.53	-4,322.64	467.58	4,347.80	0.00	0.00	0.00
11,400.00	89.86	180.29	6,926.77	-4,422.64	467.07	4,447.22	0.00	0.00	0.00
11,499.18	89.86	180.29	6,927.00	-4,521.82	466.57	4,545.82	0.00	0.00	0.00
Palyo 35N-E11HZ 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									
Palyo 35N-E11HZ BHL	0.00	0.00	6,927.00	-4,521.82	466.57	1,297,629.56	3,241,694.59	40.147153	-104.635399
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
850.00	850.00	9 5/8"	9-5/8	12-1/4	
7,272.30	6,917.00	7"	7	8-3/4	

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Palyo 35N-E11HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	RKB + GL @ 4866.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	RKB + GL @ 4866.00ft
<b>Site:</b>	WELD_PALYO 29-11HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	Palyo 35N-E11HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Palyo 35N-E11HZ		
<b>Design:</b>	Palyo 35N-E11HZ (wp01)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,948.70	3,935.00	Parkman				
4,441.46	4,425.00	Sussex				
5,446.08	5,424.00	Sharon Springs				
7,013.01	6,859.00	Niobrara A				
7,113.96	6,895.00	Niobrara B				