

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_XCEL PAD

Xcel 34-27

Xcel 34-27

Plan: Xcel 34-27 (wp01)

Standard Planning Report

09 November, 2011

Project: COLORADO NORTHERN ZONE - 83 Site: WELD_XCEL PAD Well: Xcel 34-27 Wellbore: Xcel 34-27 Section: SHL: Design: Xcel 34-27 (wp01) Latitude: 40.016596 Longitude: -104.883694 GL: 5025.00 KB: rkb + gl @ 5040.00ft	FORMATION TOP DETAILS			
	TVDPath	MDPath	Formation	
	4362.00	4484.81	PRKM TOP	
	4816.00	4938.81	SX TOP	
	7330.00	7452.81	NI A TOP	
	7750.00	7872.81	CDL TOP	
	7833.00	7955.81	GH TOP	

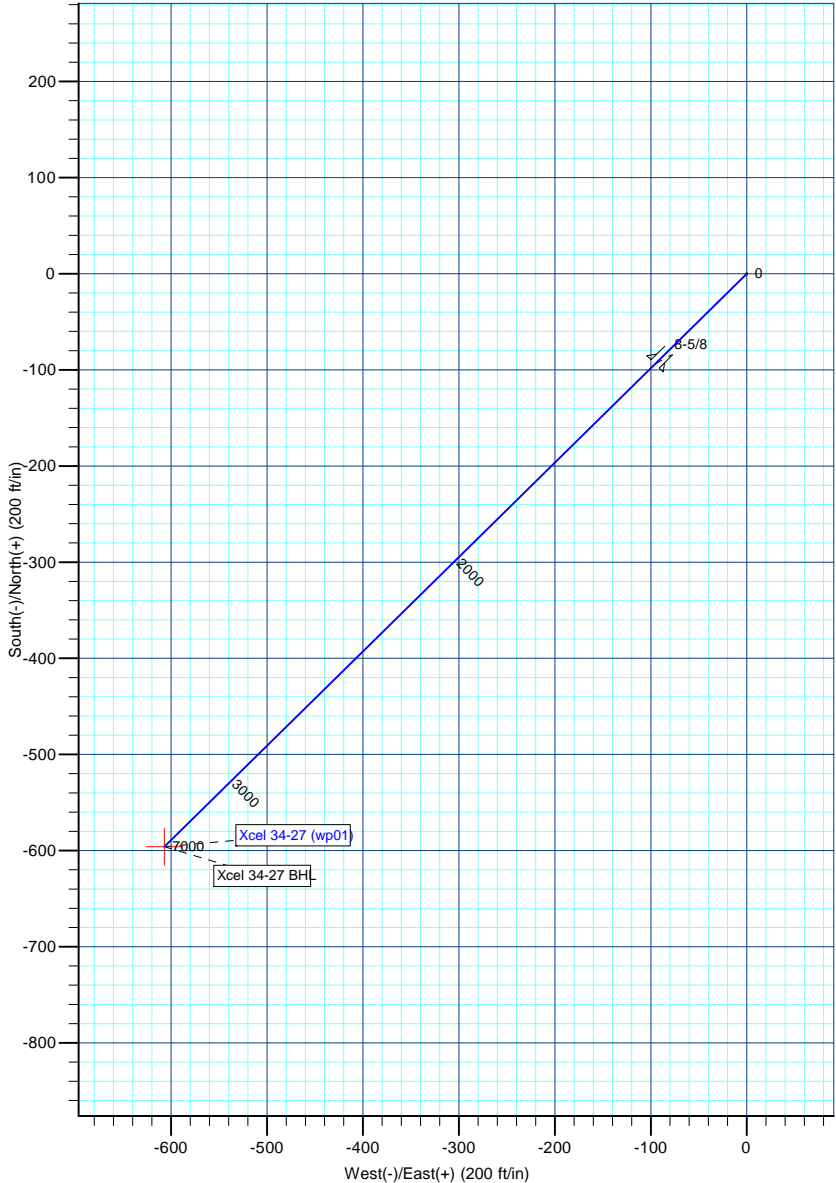
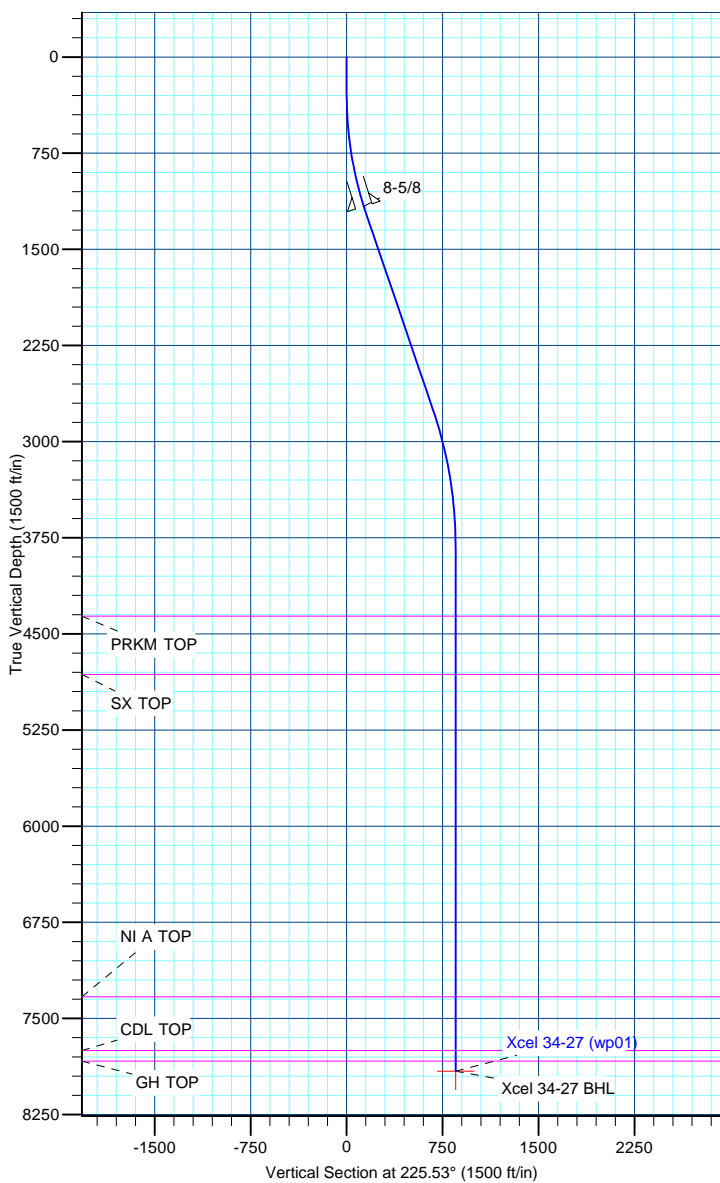
WELL DETAILS: Xcel 34-27					CASING DETAILS			
+N/-S	+E/-W	Northing	Ground Level: Easting	5025.00 Latitude	Longitude	Slot	TVD	MD
0.00	0.00	1249492.17	3172616.93	40.016596	-104.883694		1165.00	1178.71
							Name	Size
							8-5/8	8-5/8

Azimuths to True North
Magnetic North: 8.84°

Magnetic Field
Strength: 52872.3snT
Dip Angle: 66.71°
Date: 11/9/2011
Model: IGRF2010

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Xcel 34-27 BHL	7910.00	-595.93	-606.96	1248892.04	3172014.13	40.014960	-104.885861

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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
1242.82	18.86	225.53	1225.89	-107.72	-109.71	2.00	225.53	153.75
2855.30	18.86	225.53	2751.84	-472.83	-481.58	0.00	0.00	674.90
3932.81	0.00	0.00	3810.00	-595.93	-606.96	1.75	180.00	850.61
8032.81	0.00	0.00	7910.00	-595.93	-606.96	0.00	0.00	850.61



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 34-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	rkb + gl @ 5040.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	rkb + gl @ 5040.00ft
Site:	WELD_XCEL PAD	North Reference:	True
Well:	Xcel 34-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 34-27		
Design:	Xcel 34-27 (wp01)		

Project	COLORADO NORTHERN ZONE - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	WELD_XCEL PAD			
Site Position:		Northing:	1,249,555.93 usft	Latitude: 40.016771
From:	Lat/Long	Easting:	3,172,616.21 usft	Longitude: -104.883695
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.40 °

Well	Xcel 34-27			
Well Position	+N/-S	-63.76 ft	Northing:	1,249,492.17 usft
	+E/-W	0.28 ft	Easting:	3,172,616.93 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 5,025.00 ft

Wellbore	Xcel 34-27				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/9/2011	8.84	66.71	52,872

Design	Xcel 34-27 (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	225.53

Plan Sections										
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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,242.82	18.86	225.53	1,225.89	-107.72	-109.71	2.00	2.00	0.00	225.53	
2,855.30	18.86	225.53	2,751.84	-472.83	-481.58	0.00	0.00	0.00	0.00	
3,932.81	0.00	0.00	3,810.00	-595.93	-606.96	1.75	-1.75	0.00	180.00	
8,032.81	0.00	0.00	7,910.00	-595.93	-606.96	0.00	0.00	0.00	0.00	Xcel 34-27 BHL

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 34-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	rkb + gl @ 5040.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	rkb + gl @ 5040.00ft
Site:	WELD_XCEL PAD	North Reference:	True
Well:	Xcel 34-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 34-27		
Design:	Xcel 34-27 (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	2.00	225.53	399.98	-1.22	-1.25	1.75	2.00	2.00	0.00
500.00	4.00	225.53	499.84	-4.89	-4.98	6.98	2.00	2.00	0.00
600.00	6.00	225.53	599.45	-10.99	-11.20	15.69	2.00	2.00	0.00
700.00	8.00	225.53	698.70	-19.53	-19.89	27.88	2.00	2.00	0.00
800.00	10.00	225.53	797.47	-30.49	-31.06	43.52	2.00	2.00	0.00
900.00	12.00	225.53	895.62	-43.86	-44.67	62.60	2.00	2.00	0.00
1,000.00	14.00	225.53	993.06	-59.62	-60.72	85.10	2.00	2.00	0.00
1,100.00	16.00	225.53	1,089.64	-77.75	-79.19	110.98	2.00	2.00	0.00
1,178.71	17.57	225.53	1,165.00	-93.68	-95.41	133.71	2.00	2.00	0.00
8-5/8									
1,200.00	18.00	225.53	1,185.27	-98.23	-100.05	140.21	2.00	2.00	0.00
1,242.82	18.86	225.53	1,225.89	-107.72	-109.71	153.75	2.00	2.00	0.00
1,300.00	18.86	225.53	1,280.00	-120.66	-122.90	172.23	0.00	0.00	0.00
1,400.00	18.86	225.53	1,374.64	-143.31	-145.96	204.55	0.00	0.00	0.00
1,500.00	18.86	225.53	1,469.27	-165.95	-169.02	236.87	0.00	0.00	0.00
1,600.00	18.86	225.53	1,563.90	-188.59	-192.08	269.19	0.00	0.00	0.00
1,700.00	18.86	225.53	1,658.54	-211.23	-215.14	301.51	0.00	0.00	0.00
1,800.00	18.86	225.53	1,753.17	-233.88	-238.21	333.83	0.00	0.00	0.00
1,900.00	18.86	225.53	1,847.80	-256.52	-261.27	366.15	0.00	0.00	0.00
2,000.00	18.86	225.53	1,942.44	-279.16	-284.33	398.47	0.00	0.00	0.00
2,100.00	18.86	225.53	2,037.07	-301.81	-307.39	430.79	0.00	0.00	0.00
2,200.00	18.86	225.53	2,131.70	-324.45	-330.45	463.11	0.00	0.00	0.00
2,300.00	18.86	225.53	2,226.34	-347.09	-353.52	495.43	0.00	0.00	0.00
2,400.00	18.86	225.53	2,320.97	-369.74	-376.58	527.75	0.00	0.00	0.00
2,500.00	18.86	225.53	2,415.60	-392.38	-399.64	560.07	0.00	0.00	0.00
2,600.00	18.86	225.53	2,510.23	-415.02	-422.70	592.38	0.00	0.00	0.00
2,700.00	18.86	225.53	2,604.87	-437.67	-445.76	624.70	0.00	0.00	0.00
2,800.00	18.86	225.53	2,699.50	-460.31	-468.83	657.02	0.00	0.00	0.00
2,855.30	18.86	225.53	2,751.84	-472.83	-481.58	674.90	0.00	0.00	0.00
2,900.00	18.07	225.53	2,794.23	-482.75	-491.68	689.05	1.75	-1.75	0.00
3,000.00	16.32	225.53	2,889.76	-503.46	-512.78	718.62	1.75	-1.75	0.00
3,100.00	14.57	225.53	2,986.14	-522.13	-531.79	745.26	1.75	-1.75	0.00
3,200.00	12.82	225.53	3,083.29	-538.72	-548.69	768.94	1.75	-1.75	0.00
3,300.00	11.07	225.53	3,181.12	-553.22	-563.46	789.65	1.75	-1.75	0.00
3,400.00	9.32	225.53	3,279.54	-565.63	-576.09	807.35	1.75	-1.75	0.00
3,500.00	7.57	225.53	3,378.45	-575.92	-586.58	822.04	1.75	-1.75	0.00
3,600.00	5.82	225.53	3,477.76	-584.09	-594.90	833.71	1.75	-1.75	0.00
3,700.00	4.07	225.53	3,577.38	-590.14	-601.06	842.34	1.75	-1.75	0.00
3,800.00	2.32	225.53	3,677.22	-594.05	-605.04	847.92	1.75	-1.75	0.00
3,900.00	0.57	225.53	3,777.19	-595.82	-606.84	850.45	1.75	-1.75	0.00
3,932.81	0.00	0.00	3,810.00	-595.93	-606.96	850.61	1.75	-1.75	0.00
4,000.00	0.00	0.00	3,877.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,100.00	0.00	0.00	3,977.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,200.00	0.00	0.00	4,077.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,300.00	0.00	0.00	4,177.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,400.00	0.00	0.00	4,277.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,484.81	0.00	0.00	4,362.00	-595.93	-606.96	850.61	0.00	0.00	0.00
PRKM TOP									
4,500.00	0.00	0.00	4,377.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,600.00	0.00	0.00	4,477.19	-595.93	-606.96	850.61	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	rkb + gl @ 5040.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	rkb + gl @ 5040.00ft
Site:	WELD_XCEL PAD	North Reference:	True
Well:	Xcel 34-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 34-27		
Design:	Xcel 34-27 (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)
4,700.00	0.00	0.00	4,577.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,800.00	0.00	0.00	4,677.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,900.00	0.00	0.00	4,777.19	-595.93	-606.96	850.61	0.00	0.00	0.00
4,938.81	0.00	0.00	4,816.00	-595.93	-606.96	850.61	0.00	0.00	0.00
SX TOP									
5,000.00	0.00	0.00	4,877.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,100.00	0.00	0.00	4,977.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,200.00	0.00	0.00	5,077.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,300.00	0.00	0.00	5,177.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,400.00	0.00	0.00	5,277.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,500.00	0.00	0.00	5,377.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,600.00	0.00	0.00	5,477.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,700.00	0.00	0.00	5,577.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,800.00	0.00	0.00	5,677.19	-595.93	-606.96	850.61	0.00	0.00	0.00
5,900.00	0.00	0.00	5,777.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,000.00	0.00	0.00	5,877.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,100.00	0.00	0.00	5,977.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,200.00	0.00	0.00	6,077.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,300.00	0.00	0.00	6,177.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,400.00	0.00	0.00	6,277.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,500.00	0.00	0.00	6,377.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,600.00	0.00	0.00	6,477.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,700.00	0.00	0.00	6,577.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,800.00	0.00	0.00	6,677.19	-595.93	-606.96	850.61	0.00	0.00	0.00
6,900.00	0.00	0.00	6,777.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,000.00	0.00	0.00	6,877.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,100.00	0.00	0.00	6,977.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,200.00	0.00	0.00	7,077.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,300.00	0.00	0.00	7,177.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,400.00	0.00	0.00	7,277.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,452.81	0.00	0.00	7,330.00	-595.93	-606.96	850.61	0.00	0.00	0.00
NI A TOP									
7,500.00	0.00	0.00	7,377.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,600.00	0.00	0.00	7,477.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,700.00	0.00	0.00	7,577.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,800.00	0.00	0.00	7,677.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,872.81	0.00	0.00	7,750.00	-595.93	-606.96	850.61	0.00	0.00	0.00
CDL TOP									
7,900.00	0.00	0.00	7,777.19	-595.93	-606.96	850.61	0.00	0.00	0.00
7,955.81	0.00	0.00	7,833.00	-595.93	-606.96	850.61	0.00	0.00	0.00
GH TOP									
8,000.00	0.00	0.00	7,877.19	-595.93	-606.96	850.61	0.00	0.00	0.00
8,032.81	0.00	0.00	7,910.00	-595.93	-606.96	850.61	0.00	0.00	0.00
Xcel 34-27 BHL									

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 34-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	rkb + gl @ 5040.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	rkb + gl @ 5040.00ft
Site:	WELD_XCEL PAD	North Reference:	True
Well:	Xcel 34-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 34-27		
Design:	Xcel 34-27 (wp01)		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Xcel 34-27 BHL - plan hits target center - Point	0.00	0.00	7,910.00	-595.93	-606.96	1,248,892.04	3,172,014.13	40.014960	-104.885861

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
1,178.71	1,165.00	8-5/8	8-5/8	11

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,484.81	4,362.00	PRKM TOP			
4,938.81	4,816.00	SX TOP			
7,452.81	7,330.00	NI A TOP			
7,872.81	7,750.00	CDL TOP			
7,955.81	7,833.00	GH TOP			