

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_XCEL PAD**

**Xcel 35-27**

**Xcel 35-27**

**Plan: Xcel 35-27 (wp01)**

## **Standard Planning Report**

**09 November, 2011**

Project: COLORADO NORTHERN ZONE - 83 Site: WELD_XCEL PAD Well: Xcel 35-27 Wellbore: Xcel 35-27 Section: SHL: Design: Xcel 35-27 (wp01) Latitude: 40.016551 Longitude: -104.883694 GL: 5025.00 KB: gl + rkb @ 5040.00ft	FORMATION TOP DETAILS			
	TVDPath	MDPath	Formation	
	4362.00	4493.86	PRKM TOP	
	4816.00	4947.86	SX TOP	
	7330.00	7461.86	NI A TOP	
	7750.00	7881.86	CDL TOP	
	7833.00	7964.86	GH TOP	

WELL DETAILS: Xcel 35-27						
+N/-S	+E/-W	Northing	Ground Level: Easting	5025.00 Latitude	Longitude	Slot
0.00	0.00	1249475.78	3172617.05	40.016551	-104.883694	

CASING DETAILS			
TVD	MD	Name	Size
1165.00	1178.71	8-5/8	8-5/8

T

M

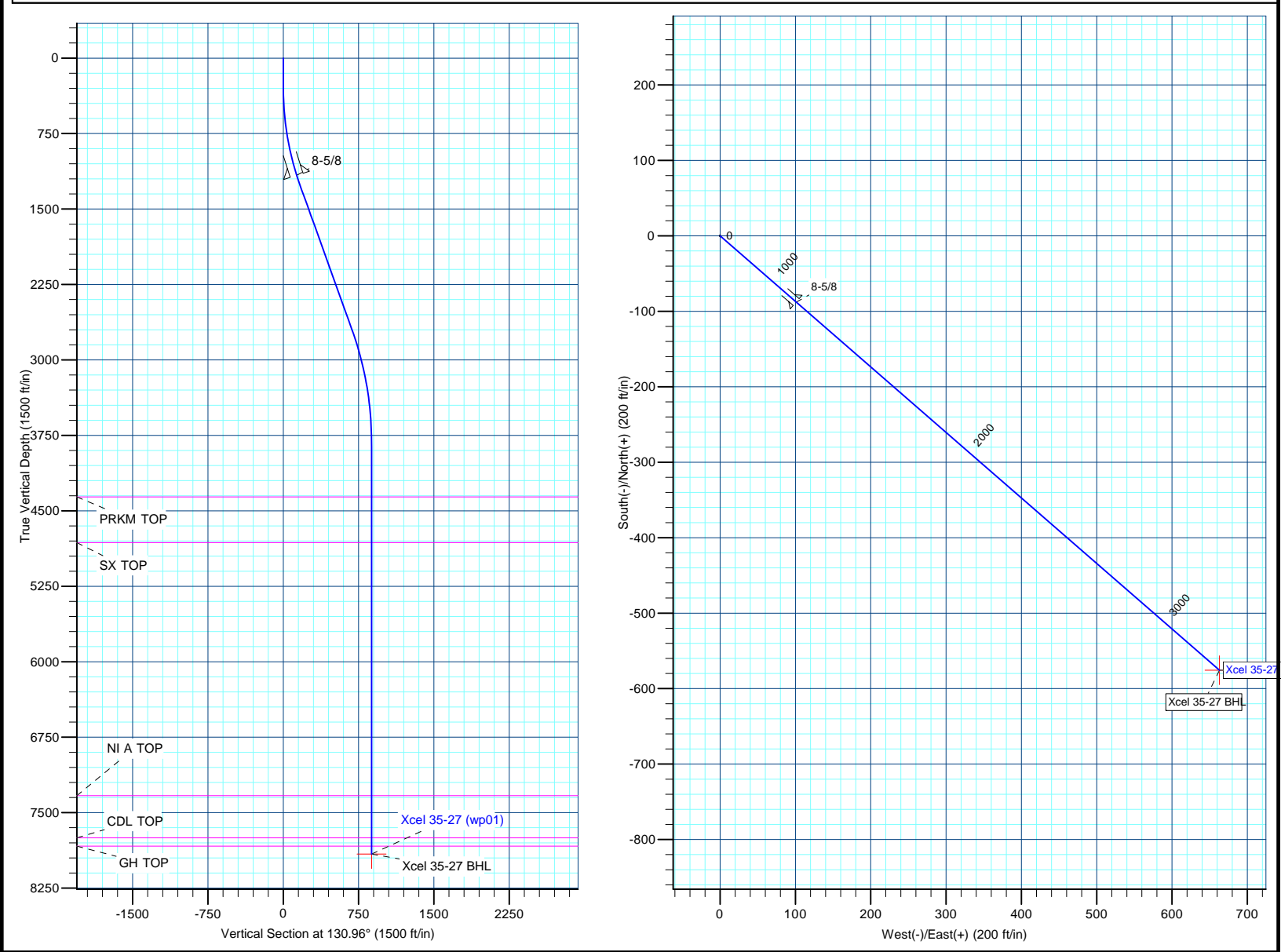
A

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 35-27 BHL	7910.00	-575.53	662.98	1248904.87	3173284.01	40.014971	-104.881327

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
1289.99	19.80	130.96	1270.40	-111.02	127.89	2.00	130.96	169.36
2810.44	19.80	130.96	2700.97	-448.65	516.82	0.00	0.00	684.39
3941.86	0.00	0.00	3810.00	-575.53	662.98	1.75	180.00	877.94
8041.86	0.00	0.00	7910.00	-575.53	662.98	0.00	0.00	877.94



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Xcel 35-27
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5040.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5040.00ft
<b>Site:</b>	WELD_XCEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	Xcel 35-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Xcel 35-27		
<b>Design:</b>	Xcel 35-27 (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_XCEL PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,249,555.93 usft	<b>Latitude:</b> 40.016771
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,172,616.21 usft	<b>Longitude:</b> -104.883695
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.40 °

<b>Well</b>	Xcel 35-27			
<b>Well Position</b>	<b>+N/-S</b>	-80.15 ft	<b>Northing:</b>	1,249,475.78 usft
	<b>+E/-W</b>	0.28 ft	<b>Easting:</b>	3,172,617.05 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 5,025.00 ft

<b>Wellbore</b>	Xcel 35-27				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/9/2011	8.84	66.71	52,872

<b>Design</b>	Xcel 35-27 (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	130.96

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
1,289.99	19.80	130.96	1,270.40	-111.02	127.89	2.00	2.00	0.00	130.96	
2,810.44	19.80	130.96	2,700.97	-448.65	516.82	0.00	0.00	0.00	0.00	
3,941.86	0.00	0.00	3,810.00	-575.53	662.98	1.75	-1.75	0.00	180.00	
8,041.86	0.00	0.00	7,910.00	-575.53	662.98	0.00	0.00	0.00	0.00	Xcel 35-27 BHL

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## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Xcel 35-27
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5040.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5040.00ft
<b>Site:</b>	WELD_XCEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	Xcel 35-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Xcel 35-27		
<b>Design:</b>	Xcel 35-27 (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	130.96	399.98	-1.14	1.32	1.75	2.00	2.00	0.00
500.00	4.00	130.96	499.84	-4.57	5.27	6.98	2.00	2.00	0.00
600.00	6.00	130.96	599.45	-10.29	11.85	15.69	2.00	2.00	0.00
700.00	8.00	130.96	698.70	-18.28	21.05	27.88	2.00	2.00	0.00
800.00	10.00	130.96	797.47	-28.53	32.87	43.52	2.00	2.00	0.00
900.00	12.00	130.96	895.62	-41.04	47.27	62.60	2.00	2.00	0.00
1,000.00	14.00	130.96	993.06	-55.78	64.26	85.10	2.00	2.00	0.00
1,100.00	16.00	130.96	1,089.64	-72.75	83.80	110.98	2.00	2.00	0.00
1,178.71	17.57	130.96	1,165.00	-87.65	100.97	133.71	2.00	2.00	0.00
8-5/8									
1,200.00	18.00	130.96	1,185.27	-91.92	105.88	140.21	2.00	2.00	0.00
1,289.99	19.80	130.96	1,270.40	-111.02	127.89	169.36	2.00	2.00	0.00
1,300.00	19.80	130.96	1,279.82	-113.25	130.45	172.75	0.00	0.00	0.00
1,400.00	19.80	130.96	1,373.91	-135.45	156.03	206.62	0.00	0.00	0.00
1,500.00	19.80	130.96	1,468.00	-157.66	181.61	240.50	0.00	0.00	0.00
1,600.00	19.80	130.96	1,562.09	-179.86	207.19	274.37	0.00	0.00	0.00
1,700.00	19.80	130.96	1,656.17	-202.07	232.77	308.24	0.00	0.00	0.00
1,800.00	19.80	130.96	1,750.26	-224.27	258.35	342.12	0.00	0.00	0.00
1,900.00	19.80	130.96	1,844.35	-246.48	283.93	375.99	0.00	0.00	0.00
2,000.00	19.80	130.96	1,938.44	-268.69	309.51	409.86	0.00	0.00	0.00
2,100.00	19.80	130.96	2,032.53	-290.89	335.09	443.74	0.00	0.00	0.00
2,200.00	19.80	130.96	2,126.62	-313.10	360.67	477.61	0.00	0.00	0.00
2,300.00	19.80	130.96	2,220.70	-335.30	386.25	511.48	0.00	0.00	0.00
2,400.00	19.80	130.96	2,314.79	-357.51	411.83	545.36	0.00	0.00	0.00
2,500.00	19.80	130.96	2,408.88	-379.71	437.41	579.23	0.00	0.00	0.00
2,600.00	19.80	130.96	2,502.97	-401.92	462.99	613.10	0.00	0.00	0.00
2,700.00	19.80	130.96	2,597.06	-424.12	488.57	646.98	0.00	0.00	0.00
2,800.00	19.80	130.96	2,691.15	-446.33	514.15	680.85	0.00	0.00	0.00
2,810.44	19.80	130.96	2,700.97	-448.65	516.82	684.39	0.00	0.00	0.00
2,900.00	18.23	130.96	2,785.64	-467.78	538.85	713.57	1.75	-1.75	0.00
3,000.00	16.48	130.96	2,881.08	-487.33	561.38	743.40	1.75	-1.75	0.00
3,100.00	14.73	130.96	2,977.39	-504.97	581.70	770.30	1.75	-1.75	0.00
3,200.00	12.98	130.96	3,074.48	-520.67	599.78	794.25	1.75	-1.75	0.00
3,300.00	11.23	130.96	3,172.25	-534.42	615.62	815.23	1.75	-1.75	0.00
3,400.00	9.48	130.96	3,270.61	-546.21	629.20	833.20	1.75	-1.75	0.00
3,500.00	7.73	130.96	3,369.48	-556.02	640.50	848.17	1.75	-1.75	0.00
3,600.00	5.98	130.96	3,468.76	-563.84	649.51	860.11	1.75	-1.75	0.00
3,700.00	4.23	130.96	3,568.36	-569.68	656.24	869.01	1.75	-1.75	0.00
3,800.00	2.48	130.96	3,668.19	-573.52	660.66	874.87	1.75	-1.75	0.00
3,900.00	0.73	130.96	3,768.14	-575.36	662.78	877.67	1.75	-1.75	0.00
3,941.86	0.00	0.00	3,810.00	-575.53	662.98	877.94	1.75	-1.75	0.00
4,000.00	0.00	0.00	3,868.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,100.00	0.00	0.00	3,968.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,200.00	0.00	0.00	4,068.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,300.00	0.00	0.00	4,168.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,400.00	0.00	0.00	4,268.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,493.86	0.00	0.00	4,362.00	-575.53	662.98	877.94	0.00	0.00	0.00
PRKM TOP									
4,500.00	0.00	0.00	4,368.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,600.00	0.00	0.00	4,468.14	-575.53	662.98	877.94	0.00	0.00	0.00

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## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Xcel 35-27
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5040.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5040.00ft
<b>Site:</b>	WELD_XCEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	Xcel 35-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Xcel 35-27		
<b>Design:</b>	Xcel 35-27 (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	4,568.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,800.00	0.00	0.00	4,668.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,900.00	0.00	0.00	4,768.14	-575.53	662.98	877.94	0.00	0.00	0.00
4,947.86	0.00	0.00	4,816.00	-575.53	662.98	877.94	0.00	0.00	0.00
<b>SX TOP</b>									
5,000.00	0.00	0.00	4,868.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,100.00	0.00	0.00	4,968.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,200.00	0.00	0.00	5,068.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,300.00	0.00	0.00	5,168.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,400.00	0.00	0.00	5,268.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,500.00	0.00	0.00	5,368.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,600.00	0.00	0.00	5,468.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,700.00	0.00	0.00	5,568.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,800.00	0.00	0.00	5,668.14	-575.53	662.98	877.94	0.00	0.00	0.00
5,900.00	0.00	0.00	5,768.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,000.00	0.00	0.00	5,868.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,100.00	0.00	0.00	5,968.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,200.00	0.00	0.00	6,068.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,300.00	0.00	0.00	6,168.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,400.00	0.00	0.00	6,268.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,500.00	0.00	0.00	6,368.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,600.00	0.00	0.00	6,468.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,700.00	0.00	0.00	6,568.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,800.00	0.00	0.00	6,668.14	-575.53	662.98	877.94	0.00	0.00	0.00
6,900.00	0.00	0.00	6,768.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,000.00	0.00	0.00	6,868.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,100.00	0.00	0.00	6,968.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,200.00	0.00	0.00	7,068.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,300.00	0.00	0.00	7,168.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,400.00	0.00	0.00	7,268.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,461.86	0.00	0.00	7,330.00	-575.53	662.98	877.94	0.00	0.00	0.00
<b>NI A TOP</b>									
7,500.00	0.00	0.00	7,368.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,600.00	0.00	0.00	7,468.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,700.00	0.00	0.00	7,568.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,800.00	0.00	0.00	7,668.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,881.86	0.00	0.00	7,750.00	-575.53	662.98	877.94	0.00	0.00	0.00
<b>CDL TOP</b>									
7,900.00	0.00	0.00	7,768.14	-575.53	662.98	877.94	0.00	0.00	0.00
7,964.86	0.00	0.00	7,833.00	-575.53	662.98	877.94	0.00	0.00	0.00
<b>GH TOP</b>									
8,000.00	0.00	0.00	7,868.14	-575.53	662.98	877.94	0.00	0.00	0.00
8,041.86	0.00	0.00	7,910.00	-575.53	662.98	877.94	0.00	0.00	0.00
<b>Xcel 35-27 BHL</b>									

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## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Xcel 35-27
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5040.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5040.00ft
<b>Site:</b>	WELD_XCEL PAD	<b>North Reference:</b>	True
<b>Well:</b>	Xcel 35-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Xcel 35-27		
<b>Design:</b>	Xcel 35-27 (wp01)		

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									
Xcel 35-27 BHL	0.00	0.00	7,910.00	-575.53	662.98	1,248,904.87	3,173,284.01	40.014971	-104.881327
- plan hits target center									
- Point									

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

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
4,493.86	4,362.00	PRKM TOP				
4,947.86	4,816.00	SX TOP				
7,461.86	7,330.00	NI A TOP				
7,881.86	7,750.00	CDL TOP				
7,964.86	7,833.00	GH TOP				