

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_XCEL PAD

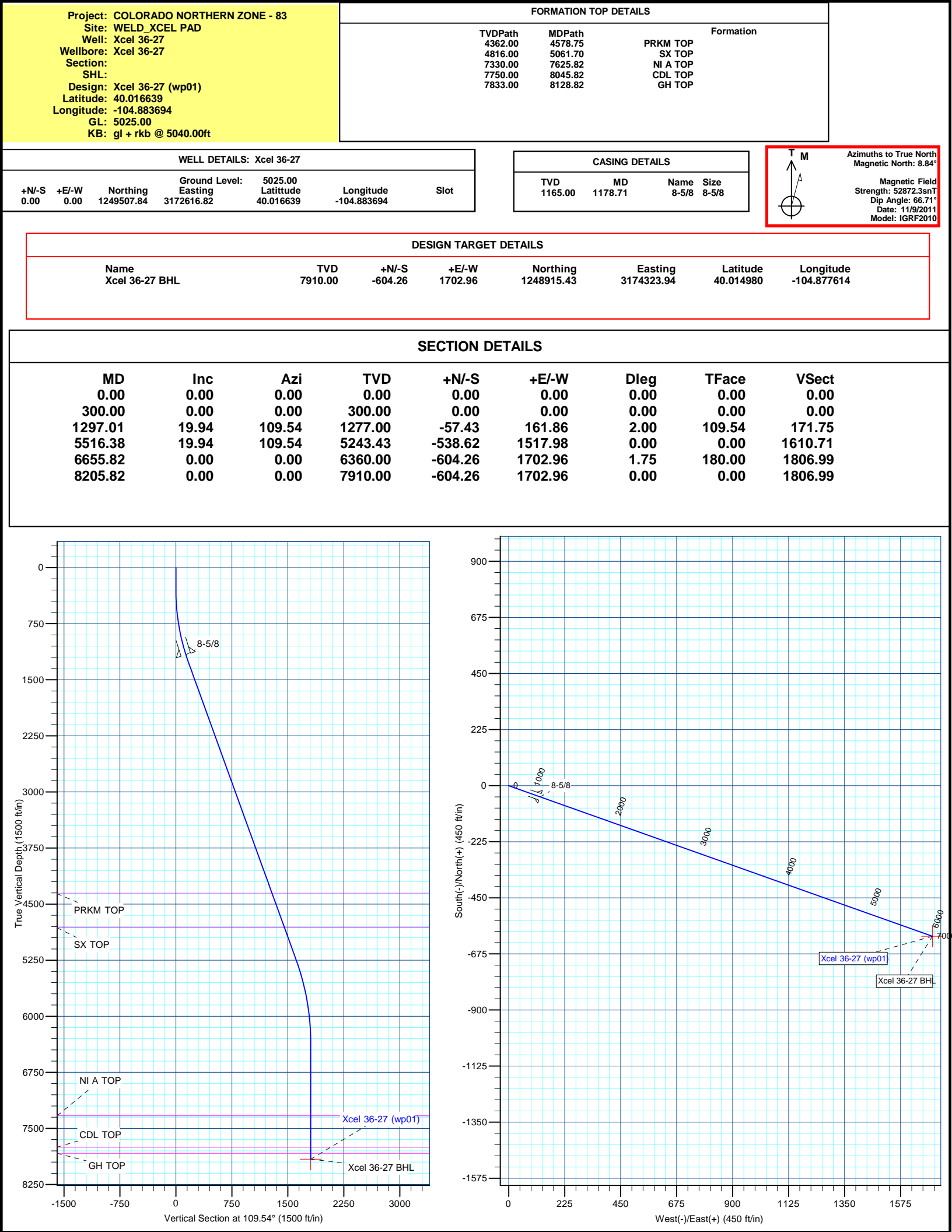
Xcel 36-27

Xcel 36-27

Plan: Xcel 36-27 (wp01)

Standard Planning Report

09 November, 2011



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 36-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	gl + rkb @ 5040.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	gl + rkb @ 5040.00ft
Site:	WELD_XCEL PAD	North Reference:	True
Well:	Xcel 36-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 36-27		
Design:	Xcel 36-27 (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 36-27			
Well Position	+N/-S	-48.10 ft	Northing:	1,249,507.84 usft
	+E/-W	0.28 ft	Easting:	3,172,616.82 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Latitude: 40.016639
				Longitude: -104.883694
				Ground Level: 5,025.00 ft

Wellbore	Xcel 36-27				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/9/2011	8.84	66.71	52,872

Design	Xcel 36-27 (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	109.54

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	
1,297.01	19.94	109.54	1,277.00	-57.43	161.86	2.00	2.00	0.00	109.54	
5,516.38	19.94	109.54	5,243.43	-538.62	1,517.98	0.00	0.00	0.00	0.00	
6,655.82	0.00	0.00	6,360.00	-604.26	1,702.96	1.75	-1.75	0.00	180.00	
8,205.82	0.00	0.00	7,910.00	-604.26	1,702.96	0.00	0.00	0.00	0.00	Xcel 36-27 BHL

Anadarko Petroleum Corp

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	gl + rkb @ 5040.00ft
Site:	WELD_XCEL PAD	North Reference:	True
Well:	Xcel 36-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 36-27		
Design:	Xcel 36-27 (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	109.54	399.98	-0.58	1.64	1.75	2.00	2.00	0.00
500.00	4.00	109.54	499.84	-2.33	6.58	6.98	2.00	2.00	0.00
600.00	6.00	109.54	599.45	-5.25	14.79	15.69	2.00	2.00	0.00
700.00	8.00	109.54	698.70	-9.32	26.27	27.88	2.00	2.00	0.00
800.00	10.00	109.54	797.47	-14.55	41.02	43.52	2.00	2.00	0.00
900.00	12.00	109.54	895.62	-20.93	59.00	62.60	2.00	2.00	0.00
1,000.00	14.00	109.54	993.06	-28.46	80.20	85.10	2.00	2.00	0.00
1,100.00	16.00	109.54	1,089.64	-37.11	104.59	110.98	2.00	2.00	0.00
1,178.71	17.57	109.54	1,165.00	-44.71	126.01	133.71	2.00	2.00	0.00
8-5/8									
1,200.00	18.00	109.54	1,185.27	-46.89	132.14	140.21	2.00	2.00	0.00
1,297.01	19.94	109.54	1,277.00	-57.43	161.86	171.75	2.00	2.00	0.00
1,300.00	19.94	109.54	1,279.82	-57.77	162.82	172.77	0.00	0.00	0.00
1,400.00	19.94	109.54	1,373.82	-69.18	194.96	206.87	0.00	0.00	0.00
1,500.00	19.94	109.54	1,467.83	-80.58	227.10	240.97	0.00	0.00	0.00
1,600.00	19.94	109.54	1,561.83	-91.99	259.24	275.08	0.00	0.00	0.00
1,700.00	19.94	109.54	1,655.84	-103.39	291.38	309.18	0.00	0.00	0.00
1,800.00	19.94	109.54	1,749.84	-114.80	323.52	343.28	0.00	0.00	0.00
1,900.00	19.94	109.54	1,843.85	-126.20	355.66	377.39	0.00	0.00	0.00
2,000.00	19.94	109.54	1,937.85	-137.60	387.80	411.49	0.00	0.00	0.00
2,100.00	19.94	109.54	2,031.86	-149.01	419.94	445.60	0.00	0.00	0.00
2,200.00	19.94	109.54	2,125.86	-160.41	452.08	479.70	0.00	0.00	0.00
2,300.00	19.94	109.54	2,219.87	-171.82	484.22	513.80	0.00	0.00	0.00
2,400.00	19.94	109.54	2,313.87	-183.22	516.36	547.91	0.00	0.00	0.00
2,500.00	19.94	109.54	2,407.88	-194.63	548.50	582.01	0.00	0.00	0.00
2,600.00	19.94	109.54	2,501.88	-206.03	580.65	616.11	0.00	0.00	0.00
2,700.00	19.94	109.54	2,595.89	-217.43	612.79	650.22	0.00	0.00	0.00
2,800.00	19.94	109.54	2,689.89	-228.84	644.93	684.32	0.00	0.00	0.00
2,900.00	19.94	109.54	2,783.90	-240.24	677.07	718.43	0.00	0.00	0.00
3,000.00	19.94	109.54	2,877.90	-251.65	709.21	752.53	0.00	0.00	0.00
3,100.00	19.94	109.54	2,971.91	-263.05	741.35	786.63	0.00	0.00	0.00
3,200.00	19.94	109.54	3,065.91	-274.46	773.49	820.74	0.00	0.00	0.00
3,300.00	19.94	109.54	3,159.92	-285.86	805.63	854.84	0.00	0.00	0.00
3,400.00	19.94	109.54	3,253.92	-297.26	837.77	888.94	0.00	0.00	0.00
3,500.00	19.94	109.54	3,347.93	-308.67	869.91	923.05	0.00	0.00	0.00
3,600.00	19.94	109.54	3,441.93	-320.07	902.05	957.15	0.00	0.00	0.00
3,700.00	19.94	109.54	3,535.94	-331.48	934.19	991.26	0.00	0.00	0.00
3,800.00	19.94	109.54	3,629.94	-342.88	966.33	1,025.36	0.00	0.00	0.00
3,900.00	19.94	109.54	3,723.95	-354.29	998.47	1,059.46	0.00	0.00	0.00
4,000.00	19.94	109.54	3,817.95	-365.69	1,030.61	1,093.57	0.00	0.00	0.00
4,100.00	19.94	109.54	3,911.96	-377.10	1,062.75	1,127.67	0.00	0.00	0.00
4,200.00	19.94	109.54	4,005.96	-388.50	1,094.89	1,161.77	0.00	0.00	0.00
4,300.00	19.94	109.54	4,099.97	-399.90	1,127.03	1,195.88	0.00	0.00	0.00
4,400.00	19.94	109.54	4,193.97	-411.31	1,159.17	1,229.98	0.00	0.00	0.00
4,500.00	19.94	109.54	4,287.98	-422.71	1,191.31	1,264.09	0.00	0.00	0.00
4,578.75	19.94	109.54	4,362.00	-431.69	1,216.62	1,290.94	0.00	0.00	0.00
PRKM TOP									
4,600.00	19.94	109.54	4,381.98	-434.12	1,223.45	1,298.19	0.00	0.00	0.00
4,700.00	19.94	109.54	4,475.99	-445.52	1,255.59	1,332.29	0.00	0.00	0.00
4,800.00	19.94	109.54	4,569.99	-456.93	1,287.73	1,366.40	0.00	0.00	0.00

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Wellbore:	Xcel 36-27		
Design:	Xcel 36-27 (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)
4,900.00	19.94	109.54	4,664.00	-468.33	1,319.87	1,400.50	0.00	0.00	0.00
5,000.00	19.94	109.54	4,758.00	-479.73	1,352.01	1,434.60	0.00	0.00	0.00
5,061.70	19.94	109.54	4,816.00	-486.77	1,371.85	1,455.65	0.00	0.00	0.00
SX TOP									
5,100.00	19.94	109.54	4,852.01	-491.14	1,384.16	1,468.71	0.00	0.00	0.00
5,200.00	19.94	109.54	4,946.01	-502.54	1,416.30	1,502.81	0.00	0.00	0.00
5,300.00	19.94	109.54	5,040.02	-513.95	1,448.44	1,536.92	0.00	0.00	0.00
5,400.00	19.94	109.54	5,134.02	-525.35	1,480.58	1,571.02	0.00	0.00	0.00
5,500.00	19.94	109.54	5,228.03	-536.76	1,512.72	1,605.12	0.00	0.00	0.00
5,516.38	19.94	109.54	5,243.43	-538.62	1,517.98	1,610.71	0.00	0.00	0.00
5,600.00	18.48	109.54	5,322.39	-547.82	1,543.91	1,638.22	1.75	-1.75	0.00
5,700.00	16.73	109.54	5,417.70	-557.94	1,572.41	1,668.46	1.75	-1.75	0.00
5,800.00	14.98	109.54	5,513.89	-567.07	1,598.15	1,695.77	1.75	-1.75	0.00
5,900.00	13.23	109.54	5,610.88	-575.22	1,621.11	1,720.14	1.75	-1.75	0.00
6,000.00	11.48	109.54	5,708.56	-582.37	1,641.27	1,741.53	1.75	-1.75	0.00
6,100.00	9.73	109.54	5,806.85	-588.52	1,658.61	1,759.92	1.75	-1.75	0.00
6,200.00	7.98	109.54	5,905.65	-593.67	1,673.11	1,775.31	1.75	-1.75	0.00
6,300.00	6.23	109.54	6,004.88	-597.80	1,684.76	1,787.67	1.75	-1.75	0.00
6,400.00	4.48	109.54	6,104.44	-600.92	1,693.55	1,797.00	1.75	-1.75	0.00
6,500.00	2.73	109.54	6,204.24	-603.02	1,699.47	1,803.28	1.75	-1.75	0.00
6,600.00	0.98	109.54	6,304.18	-604.10	1,702.51	1,806.51	1.75	-1.75	0.00
6,655.82	0.00	0.00	6,360.00	-604.26	1,702.96	1,806.99	1.75	-1.75	0.00
6,700.00	0.00	0.00	6,404.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
6,800.00	0.00	0.00	6,504.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
6,900.00	0.00	0.00	6,604.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,000.00	0.00	0.00	6,704.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,100.00	0.00	0.00	6,804.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,200.00	0.00	0.00	6,904.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,300.00	0.00	0.00	7,004.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,400.00	0.00	0.00	7,104.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,500.00	0.00	0.00	7,204.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,600.00	0.00	0.00	7,304.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,625.82	0.00	0.00	7,330.00	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
NI A TOP									
7,700.00	0.00	0.00	7,404.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,800.00	0.00	0.00	7,504.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
7,900.00	0.00	0.00	7,604.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
8,000.00	0.00	0.00	7,704.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
8,045.82	0.00	0.00	7,750.00	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
CDL TOP									
8,100.00	0.00	0.00	7,804.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
8,128.82	0.00	0.00	7,833.00	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
GH TOP									
8,200.00	0.00	0.00	7,904.18	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
8,205.82	0.00	0.00	7,910.00	-604.26	1,702.96	1,806.99	0.00	0.00	0.00
Xcel 36-27 BHL									

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Database:	edmp	Local Co-ordinate Reference:	Well Xcel 36-27
Company:	US ROCKIES REGION PLANNING	TVD Reference:	gl + rkb @ 5040.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	gl + rkb @ 5040.00ft
Site:	WELD_XCEL PAD	North Reference:	True
Well:	Xcel 36-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 36-27		
Design:	Xcel 36-27 (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 36-27 BHL	0.00	0.00	7,910.00	-604.26	1,702.96	1,248,915.43	3,174,323.94	40.014980	-104.877614
- 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	11	

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
4,578.75	4,362.00	PRKM TOP				
5,061.70	4,816.00	SX TOP				
7,625.82	7,330.00	NI A TOP				
8,045.82	7,750.00	CDL TOP				
8,128.82	7,833.00	GH TOP				