

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_XCEL PAD

Xcel 12-27


Xcel 12-27

Plan: Xcel 12-27 (wp02)

Standard Planning Report

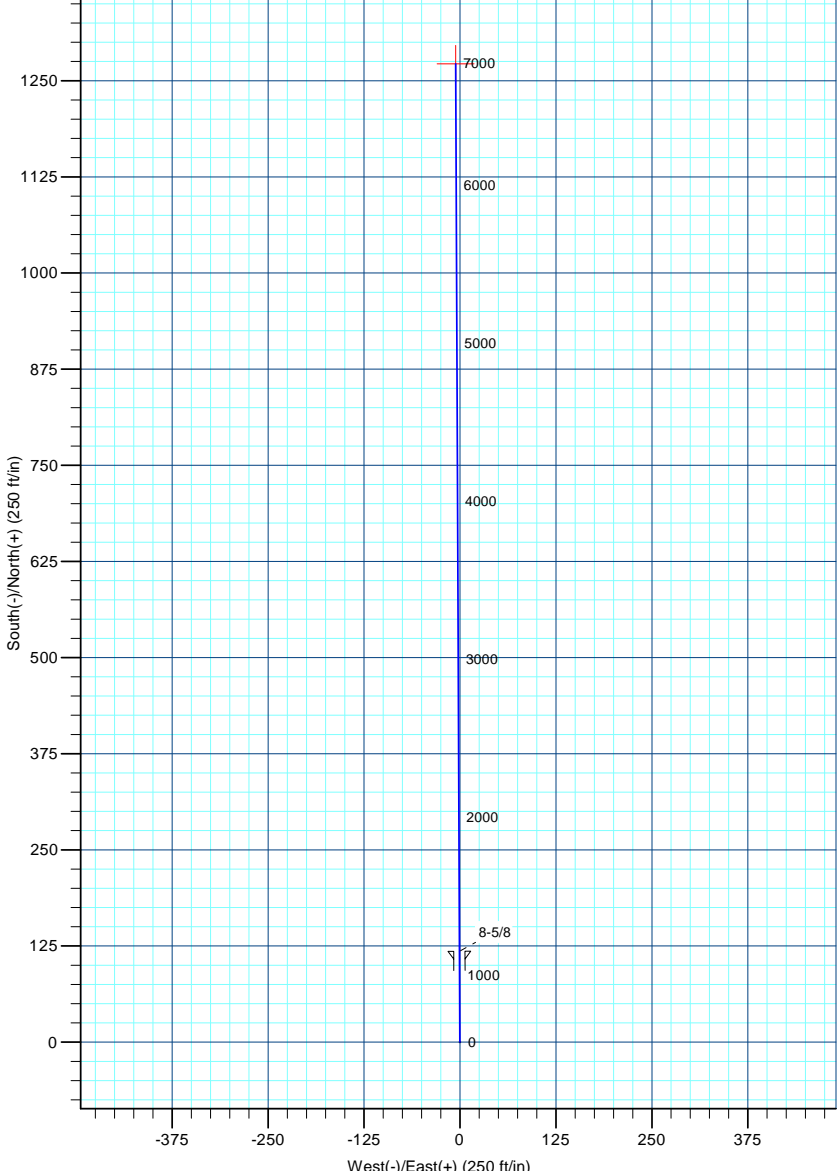
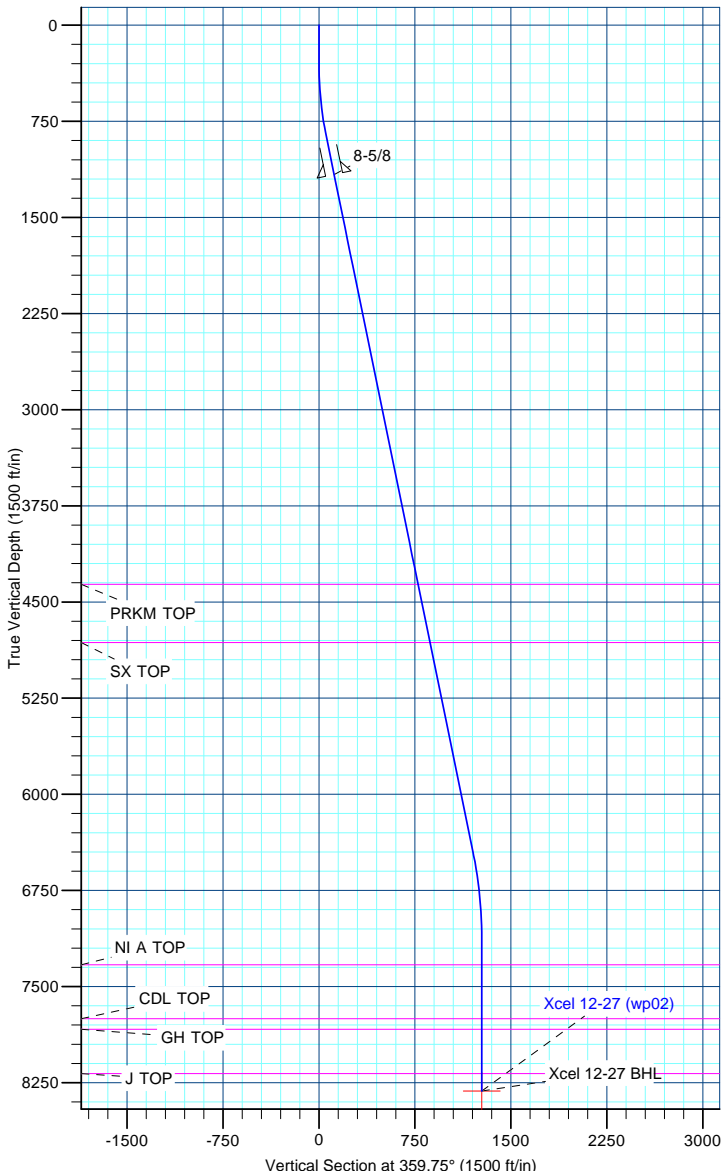
10 November, 2011

Project: COLORADO NORTHERN ZONE - 83 Site: WELD_XCEL PAD Well: Xcel 12-27 Wellbore: Xcel 12-27 Section: SHL: Design: Xcel 12-27 (wp02) Latitude: 40.016771 Longitude: -104.883695 GL: 5025.00 KB: GL + RKB @ 5040.00ft	FORMATION TOP DETAILS		
	TVDPath	MDPath	Formation
	4362.00	4438.78	PRKM TOP
	4816.00	4902.27	SX TOP
	7330.00	7455.07	NI A TOP
	7750.00	7875.07	CDL TOP
	7833.00	7958.07	GH TOP
	8180.00	8305.07	J TOP

WELL DETAILS: Xcel 12-27						CASING DETAILS				<div><div><div>T</div><div>M</div><div>A</div></div></div> <div>Azimuths to True North Magnetic North: 8.84° Magnetic Field Strength: 52872.4snT Dip Angle: 66.71° Date: 11/9/2011 Model: IGRF2010</div>	
+S	+E/-W	Northing	Ground Level: Easting	5025.00 Latitude	Longitude	Slot	TVD	MD	Name		Size
0	0.00	1249555.91	3172616.21	40.016771	-104.883695		1165.00	1174.99	8-5/8		8-5/8

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Xcel 12-27 BHL	8315.00	1272.07	-5.60	1250827.91	3172601.77	40.020263	-104.883715

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
880.57	11.61	359.75	876.61	58.63	-0.26	2.00	359.75	58.63
6576.55	11.61	359.75	6456.02	1205.06	-5.31	0.00	0.00	1205.08
7240.07	0.00	0.00	7115.00	1272.07	-5.60	1.75	180.00	1272.08
8440.07	0.00	0.00	8315.00	1272.07	-5.60	0.00	0.00	1272.08



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 12-27
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 12-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 12-27		
Design:	Xcel 12-27 (wp02)		

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 12-27			
Well Position	+N/-S	-0.02 ft	Northing:	1,249,555.91 usft
	+E/-W	0.00 ft	Easting:	3,172,616.21 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 5,025.00 ft

Wellbore	Xcel 12-27				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/9/2011	8.84	66.71	52,872

Design	Xcel 12-27 (wp02)			
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	359.75

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	
880.57	11.61	359.75	876.61	58.63	-0.26	2.00	2.00	0.00	359.75	
6,576.56	11.61	359.75	6,456.02	1,205.06	-5.31	0.00	0.00	0.00	0.00	
7,240.07	0.00	0.00	7,115.00	1,272.07	-5.60	1.75	-1.75	0.00	180.00	
8,440.07	0.00	0.00	8,315.00	1,272.07	-5.60	0.00	0.00	0.00	0.00	Xcel 12-27 BHL

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 12-27
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 12-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 12-27		
Design:	Xcel 12-27 (wp02)		

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	359.75	399.98	1.75	-0.01	1.75	2.00	2.00	0.00
500.00	4.00	359.75	499.84	6.98	-0.03	6.98	2.00	2.00	0.00
600.00	6.00	359.75	599.45	15.69	-0.07	15.69	2.00	2.00	0.00
700.00	8.00	359.75	698.70	27.88	-0.12	27.88	2.00	2.00	0.00
800.00	10.00	359.75	797.47	43.52	-0.19	43.52	2.00	2.00	0.00
880.57	11.61	359.75	876.61	58.63	-0.26	58.63	2.00	2.00	0.00
900.00	11.61	359.75	895.64	62.54	-0.28	62.54	0.00	0.00	0.00
1,000.00	11.61	359.75	993.59	82.66	-0.36	82.67	0.00	0.00	0.00
1,100.00	11.61	359.75	1,091.54	102.79	-0.45	102.79	0.00	0.00	0.00
1,174.99	11.61	359.75	1,165.00	117.89	-0.52	117.89	0.00	0.00	0.00
8-5/8									
1,200.00	11.61	359.75	1,189.50	122.92	-0.54	122.92	0.00	0.00	0.00
1,300.00	11.61	359.75	1,287.45	143.05	-0.63	143.05	0.00	0.00	0.00
1,400.00	11.61	359.75	1,385.40	163.17	-0.72	163.17	0.00	0.00	0.00
1,500.00	11.61	359.75	1,483.36	183.30	-0.81	183.30	0.00	0.00	0.00
1,600.00	11.61	359.75	1,581.31	203.43	-0.90	203.43	0.00	0.00	0.00
1,700.00	11.61	359.75	1,679.26	223.55	-0.98	223.56	0.00	0.00	0.00
1,800.00	11.61	359.75	1,777.22	243.68	-1.07	243.68	0.00	0.00	0.00
1,900.00	11.61	359.75	1,875.17	263.81	-1.16	263.81	0.00	0.00	0.00
2,000.00	11.61	359.75	1,973.13	283.94	-1.25	283.94	0.00	0.00	0.00
2,100.00	11.61	359.75	2,071.08	304.06	-1.34	304.07	0.00	0.00	0.00
2,200.00	11.61	359.75	2,169.03	324.19	-1.43	324.19	0.00	0.00	0.00
2,300.00	11.61	359.75	2,266.99	344.32	-1.52	344.32	0.00	0.00	0.00
2,400.00	11.61	359.75	2,364.94	364.44	-1.60	364.45	0.00	0.00	0.00
2,500.00	11.61	359.75	2,462.89	384.57	-1.69	384.57	0.00	0.00	0.00
2,600.00	11.61	359.75	2,560.85	404.70	-1.78	404.70	0.00	0.00	0.00
2,700.00	11.61	359.75	2,658.80	424.83	-1.87	424.83	0.00	0.00	0.00
2,800.00	11.61	359.75	2,756.75	444.95	-1.96	444.96	0.00	0.00	0.00
2,900.00	11.61	359.75	2,854.71	465.08	-2.05	465.08	0.00	0.00	0.00
3,000.00	11.61	359.75	2,952.66	485.21	-2.14	485.21	0.00	0.00	0.00
3,100.00	11.61	359.75	3,050.61	505.33	-2.23	505.34	0.00	0.00	0.00
3,200.00	11.61	359.75	3,148.57	525.46	-2.31	525.47	0.00	0.00	0.00
3,300.00	11.61	359.75	3,246.52	545.59	-2.40	545.59	0.00	0.00	0.00
3,400.00	11.61	359.75	3,344.47	565.72	-2.49	565.72	0.00	0.00	0.00
3,500.00	11.61	359.75	3,442.43	585.84	-2.58	585.85	0.00	0.00	0.00
3,600.00	11.61	359.75	3,540.38	605.97	-2.67	605.98	0.00	0.00	0.00
3,700.00	11.61	359.75	3,638.34	626.10	-2.76	626.10	0.00	0.00	0.00
3,800.00	11.61	359.75	3,736.29	646.22	-2.85	646.23	0.00	0.00	0.00
3,900.00	11.61	359.75	3,834.24	666.35	-2.93	666.36	0.00	0.00	0.00
4,000.00	11.61	359.75	3,932.20	686.48	-3.02	686.48	0.00	0.00	0.00
4,100.00	11.61	359.75	4,030.15	706.60	-3.11	706.61	0.00	0.00	0.00
4,200.00	11.61	359.75	4,128.10	726.73	-3.20	726.74	0.00	0.00	0.00
4,300.00	11.61	359.75	4,226.06	746.86	-3.29	746.87	0.00	0.00	0.00
4,400.00	11.61	359.75	4,324.01	766.99	-3.38	766.99	0.00	0.00	0.00
4,438.78	11.61	359.75	4,362.00	774.79	-3.41	774.80	0.00	0.00	0.00
PRKM TOP									
4,500.00	11.61	359.75	4,421.96	787.11	-3.47	787.12	0.00	0.00	0.00
4,600.00	11.61	359.75	4,519.92	807.24	-3.55	807.25	0.00	0.00	0.00
4,700.00	11.61	359.75	4,617.87	827.37	-3.64	827.38	0.00	0.00	0.00
4,800.00	11.61	359.75	4,715.82	847.49	-3.73	847.50	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

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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 12-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 12-27		
Design:	Xcel 12-27 (wp02)		

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	11.61	359.75	4,813.78	867.62	-3.82	867.63	0.00	0.00	0.00
4,902.27	11.61	359.75	4,816.00	868.08	-3.82	868.09	0.00	0.00	0.00
SX TOP									
5,000.00	11.61	359.75	4,911.73	887.75	-3.91	887.76	0.00	0.00	0.00
5,100.00	11.61	359.75	5,009.68	907.88	-4.00	907.88	0.00	0.00	0.00
5,200.00	11.61	359.75	5,107.64	928.00	-4.09	928.01	0.00	0.00	0.00
5,300.00	11.61	359.75	5,205.59	948.13	-4.17	948.14	0.00	0.00	0.00
5,400.00	11.61	359.75	5,303.54	968.26	-4.26	968.27	0.00	0.00	0.00
5,500.00	11.61	359.75	5,401.50	988.38	-4.35	988.39	0.00	0.00	0.00
5,600.00	11.61	359.75	5,499.45	1,008.51	-4.44	1,008.52	0.00	0.00	0.00
5,700.00	11.61	359.75	5,597.41	1,028.64	-4.53	1,028.65	0.00	0.00	0.00
5,800.00	11.61	359.75	5,695.36	1,048.77	-4.62	1,048.78	0.00	0.00	0.00
5,900.00	11.61	359.75	5,793.31	1,068.89	-4.71	1,068.90	0.00	0.00	0.00
6,000.00	11.61	359.75	5,891.27	1,089.02	-4.80	1,089.03	0.00	0.00	0.00
6,100.00	11.61	359.75	5,989.22	1,109.15	-4.88	1,109.16	0.00	0.00	0.00
6,200.00	11.61	359.75	6,087.17	1,129.27	-4.97	1,129.29	0.00	0.00	0.00
6,300.00	11.61	359.75	6,185.13	1,149.40	-5.06	1,149.41	0.00	0.00	0.00
6,400.00	11.61	359.75	6,283.08	1,169.53	-5.15	1,169.54	0.00	0.00	0.00
6,500.00	11.61	359.75	6,381.03	1,189.66	-5.24	1,189.67	0.00	0.00	0.00
6,576.56	11.61	359.75	6,456.02	1,205.06	-5.31	1,205.08	0.00	0.00	0.00
6,600.00	11.20	359.75	6,479.00	1,209.70	-5.33	1,209.71	1.75	-1.75	0.00
6,700.00	9.45	359.75	6,577.38	1,227.62	-5.41	1,227.64	1.75	-1.75	0.00
6,800.00	7.70	359.75	6,676.26	1,242.54	-5.47	1,242.55	1.75	-1.75	0.00
6,900.00	5.95	359.75	6,775.55	1,254.42	-5.52	1,254.43	1.75	-1.75	0.00
7,000.00	4.20	359.75	6,875.15	1,263.27	-5.56	1,263.28	1.75	-1.75	0.00
7,100.00	2.45	359.75	6,974.98	1,269.07	-5.59	1,269.08	1.75	-1.75	0.00
7,200.00	0.70	359.75	7,074.94	1,271.82	-5.60	1,271.83	1.75	-1.75	0.00
7,240.07	0.00	0.00	7,115.00	1,272.07	-5.60	1,272.08	1.75	-1.75	0.00
7,300.00	0.00	0.00	7,174.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
7,400.00	0.00	0.00	7,274.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
7,455.07	0.00	0.00	7,330.00	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
NI A TOP									
7,500.00	0.00	0.00	7,374.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
7,600.00	0.00	0.00	7,474.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
7,700.00	0.00	0.00	7,574.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
7,800.00	0.00	0.00	7,674.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
7,875.07	0.00	0.00	7,750.00	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
CDL TOP									
7,900.00	0.00	0.00	7,774.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
7,958.07	0.00	0.00	7,833.00	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
GH TOP									
8,000.00	0.00	0.00	7,874.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
8,100.00	0.00	0.00	7,974.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
8,200.00	0.00	0.00	8,074.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
8,300.00	0.00	0.00	8,174.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
8,305.07	0.00	0.00	8,180.00	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
J TOP									
8,400.00	0.00	0.00	8,274.93	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
8,440.07	0.00	0.00	8,315.00	1,272.07	-5.60	1,272.08	0.00	0.00	0.00
Xcel 12-27 BHL									

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 12-27
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 12-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 12-27		
Design:	Xcel 12-27 (wp02)		

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 12-27 BHL - plan hits target center - Point	0.00	0.00	8,315.00	1,272.07	-5.60	1,250,827.91	3,172,601.77	40.020263	-104.883715

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
1,174.99	1,165.00	8-5/8	8-5/8	11

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,438.78	4,362.00	PRKM TOP				
4,902.27	4,816.00	SX TOP				
7,455.07	7,330.00	NI A TOP				
7,875.07	7,750.00	CDL TOP				
7,958.07	7,833.00	GH TOP				
8,305.07	8,180.00	J TOP				