

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_XCEL PAD

Xcel 14-27

Xcel 14-27

Plan: Xcel 14-27 (wp01)

Standard Planning Report

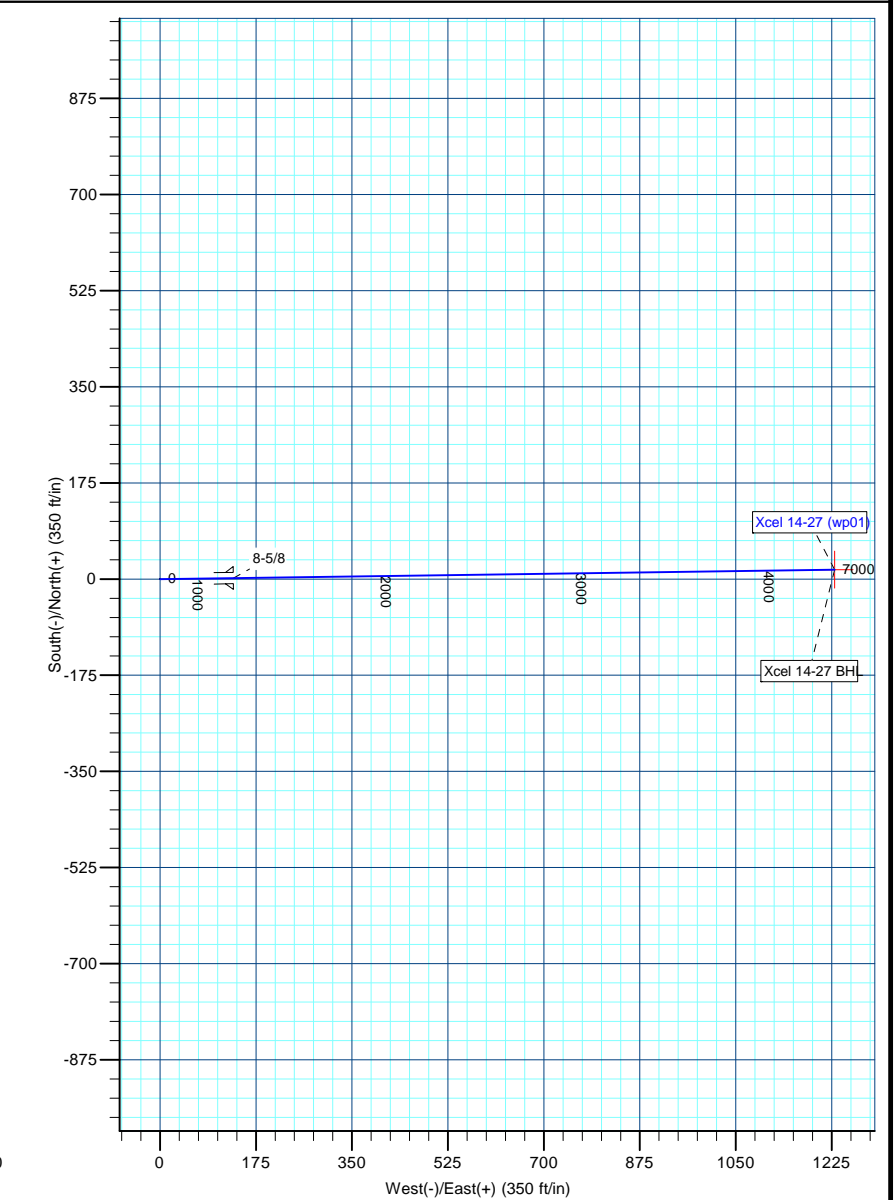
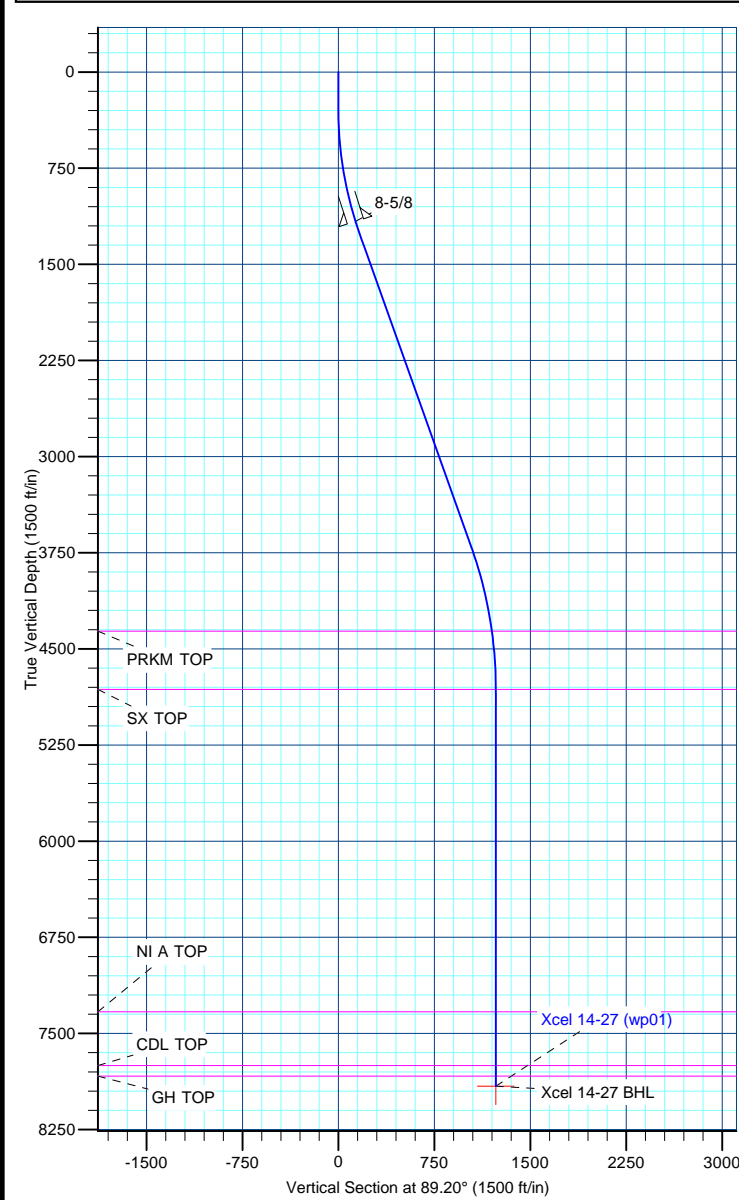
09 November, 2011

Project: COLORADO NORTHERN ZONE - 83 Site: WELD_XCEL PAD Well: Xcel 14-27 Wellbore: Xcel 14-27 Section: SHL: Design: Xcel 14-27 (wp01) Latitude: 40.016727 Longitude: -104.883695 GL: 5025.00 KB: gl + rkb @ 5040.00ft	FORMATION TOP DETAILS		
	TVDPath	MDPath	Formation
	4362.00	4552.68	PRKM TOP
	4816.00	5008.09	SX TOP
	7330.00	7522.09	NI A TOP
	7750.00	7942.09	CDL TOP
	7833.00	8025.09	GH TOP

WELL DETAILS: Xcel 14-27							CASING DETAILS				<div><div><div><div>T</div><div>M</div></div><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></div>
+N/-S	+E/-W	Northing	Ground Level: Easting	5025.00 Latitude	Longitude	Slot	TVD	MD	Name	Size	
0.00	0.00	1249539.89	3172616.32	40.016727	-104.883695		1165.00	1178.71	8-5/8	8-5/8	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Xcel 14-27 BHL	7910.00	17.16	1230.13	1249565.60	3173846.30	40.016774	-104.879303

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
1281.97	19.64	89.20	1262.85	2.33	166.64	2.00	89.20	166.65
3879.84	19.64	89.20	3709.60	14.51	1039.69	0.00	0.00	1039.79
5002.09	0.00	0.00	4810.00	17.16	1230.13	1.75	180.00	1230.25
8102.09	0.00	0.00	7910.00	17.16	1230.13	0.00	0.00	1230.25



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 14-27
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 14-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 14-27		
Design:	Xcel 14-27 (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 14-27					
Well Position	+N/-S	-16.04 ft	Northing:	1,249,539.89 usft	Latitude:	40.016727
	+E/-W	0.00 ft	Easting:	3,172,616.32 usft	Longitude:	-104.883695
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,025.00 ft

Wellbore	Xcel 14-27				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/9/2011	8.84	66.71	52,872

Design	Xcel 14-27 (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	89.20	

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	
1,281.97	19.64	89.20	1,262.85	2.33	166.64	2.00	2.00	0.00	89.20	
3,879.84	19.64	89.20	3,709.60	14.51	1,039.69	0.00	0.00	0.00	0.00	
5,002.09	0.00	0.00	4,810.00	17.16	1,230.13	1.75	-1.75	0.00	180.00	
8,102.09	0.00	0.00	7,910.00	17.16	1,230.13	0.00	0.00	0.00	0.00	Xcel 14-27 BHL

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 14-27
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 14-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 14-27		
Design:	Xcel 14-27 (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	89.20	399.98	0.02	1.74	1.75	2.00	2.00	0.00
500.00	4.00	89.20	499.84	0.10	6.98	6.98	2.00	2.00	0.00
600.00	6.00	89.20	599.45	0.22	15.69	15.69	2.00	2.00	0.00
700.00	8.00	89.20	698.70	0.39	27.88	27.88	2.00	2.00	0.00
800.00	10.00	89.20	797.47	0.61	43.52	43.52	2.00	2.00	0.00
900.00	12.00	89.20	895.62	0.87	62.60	62.60	2.00	2.00	0.00
1,000.00	14.00	89.20	993.06	1.19	85.09	85.10	2.00	2.00	0.00
1,100.00	16.00	89.20	1,089.64	1.55	110.97	110.98	2.00	2.00	0.00
1,178.71	17.57	89.20	1,165.00	1.87	133.70	133.71	2.00	2.00	0.00
8-5/8									
1,200.00	18.00	89.20	1,185.27	1.96	140.20	140.21	2.00	2.00	0.00
1,281.97	19.64	89.20	1,262.85	2.33	166.64	166.65	2.00	2.00	0.00
1,300.00	19.64	89.20	1,279.83	2.41	172.70	172.71	0.00	0.00	0.00
1,400.00	19.64	89.20	1,374.02	2.88	206.30	206.32	0.00	0.00	0.00
1,500.00	19.64	89.20	1,468.20	3.35	239.91	239.93	0.00	0.00	0.00
1,600.00	19.64	89.20	1,562.38	3.82	273.52	273.54	0.00	0.00	0.00
1,700.00	19.64	89.20	1,656.57	4.29	307.12	307.15	0.00	0.00	0.00
1,800.00	19.64	89.20	1,750.75	4.75	340.73	340.76	0.00	0.00	0.00
1,900.00	19.64	89.20	1,844.93	5.22	374.34	374.37	0.00	0.00	0.00
2,000.00	19.64	89.20	1,939.11	5.69	407.94	407.98	0.00	0.00	0.00
2,100.00	19.64	89.20	2,033.30	6.16	441.55	441.59	0.00	0.00	0.00
2,200.00	19.64	89.20	2,127.48	6.63	475.16	475.20	0.00	0.00	0.00
2,300.00	19.64	89.20	2,221.66	7.10	508.76	508.81	0.00	0.00	0.00
2,400.00	19.64	89.20	2,315.84	7.57	542.37	542.42	0.00	0.00	0.00
2,500.00	19.64	89.20	2,410.03	8.04	575.98	576.03	0.00	0.00	0.00
2,600.00	19.64	89.20	2,504.21	8.51	609.58	609.64	0.00	0.00	0.00
2,700.00	19.64	89.20	2,598.39	8.97	643.19	643.25	0.00	0.00	0.00
2,800.00	19.64	89.20	2,692.58	9.44	676.80	676.86	0.00	0.00	0.00
2,900.00	19.64	89.20	2,786.76	9.91	710.40	710.47	0.00	0.00	0.00
3,000.00	19.64	89.20	2,880.94	10.38	744.01	744.08	0.00	0.00	0.00
3,100.00	19.64	89.20	2,975.12	10.85	777.61	777.69	0.00	0.00	0.00
3,200.00	19.64	89.20	3,069.31	11.32	811.22	811.30	0.00	0.00	0.00
3,300.00	19.64	89.20	3,163.49	11.79	844.83	844.91	0.00	0.00	0.00
3,400.00	19.64	89.20	3,257.67	12.26	878.43	878.52	0.00	0.00	0.00
3,500.00	19.64	89.20	3,351.85	12.73	912.04	912.13	0.00	0.00	0.00
3,600.00	19.64	89.20	3,446.04	13.19	945.65	945.74	0.00	0.00	0.00
3,700.00	19.64	89.20	3,540.22	13.66	979.25	979.35	0.00	0.00	0.00
3,800.00	19.64	89.20	3,634.40	14.13	1,012.86	1,012.96	0.00	0.00	0.00
3,879.84	19.64	89.20	3,709.60	14.51	1,039.69	1,039.79	0.00	0.00	0.00
3,900.00	19.29	89.20	3,728.61	14.60	1,046.41	1,046.51	1.75	-1.75	0.00
4,000.00	17.54	89.20	3,823.48	15.04	1,077.99	1,078.09	1.75	-1.75	0.00
4,100.00	15.79	89.20	3,919.28	15.44	1,106.66	1,106.76	1.75	-1.75	0.00
4,200.00	14.04	89.20	4,015.91	15.80	1,132.38	1,132.50	1.75	-1.75	0.00
4,300.00	12.29	89.20	4,113.28	16.12	1,155.15	1,155.26	1.75	-1.75	0.00
4,400.00	10.54	89.20	4,211.30	16.39	1,174.93	1,175.05	1.75	-1.75	0.00
4,500.00	8.79	89.20	4,309.88	16.63	1,191.71	1,191.83	1.75	-1.75	0.00
4,552.68	7.86	89.20	4,362.00	16.73	1,199.34	1,199.46	1.75	-1.75	0.00
PRKM TOP									
4,600.00	7.04	89.20	4,408.92	16.82	1,205.48	1,205.59	1.75	-1.75	0.00
4,700.00	5.29	89.20	4,508.34	16.97	1,216.21	1,216.33	1.75	-1.75	0.00

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Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Xcel 14-27
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 14-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 14-27		
Design:	Xcel 14-27 (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)
4,800.00	3.54	89.20	4,608.04	17.08	1,223.90	1,224.02	1.75	-1.75	0.00
4,900.00	1.79	89.20	4,707.93	17.14	1,228.54	1,228.66	1.75	-1.75	0.00
5,000.00	0.04	89.20	4,807.91	17.16	1,230.13	1,230.25	1.75	-1.75	0.00
5,002.09	0.00	0.00	4,810.00	17.16	1,230.13	1,230.25	1.75	-1.75	0.00
5,008.09	0.00	0.00	4,816.00	17.16	1,230.13	1,230.25	0.00	0.00	0.00
SX TOP									
5,100.00	0.00	0.00	4,907.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
5,200.00	0.00	0.00	5,007.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
5,300.00	0.00	0.00	5,107.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
5,400.00	0.00	0.00	5,207.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
5,500.00	0.00	0.00	5,307.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
5,600.00	0.00	0.00	5,407.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
5,700.00	0.00	0.00	5,507.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
5,800.00	0.00	0.00	5,607.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
5,900.00	0.00	0.00	5,707.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,000.00	0.00	0.00	5,807.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,100.00	0.00	0.00	5,907.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,200.00	0.00	0.00	6,007.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,300.00	0.00	0.00	6,107.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,400.00	0.00	0.00	6,207.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,500.00	0.00	0.00	6,307.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,600.00	0.00	0.00	6,407.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,700.00	0.00	0.00	6,507.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,800.00	0.00	0.00	6,607.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
6,900.00	0.00	0.00	6,707.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,000.00	0.00	0.00	6,807.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,100.00	0.00	0.00	6,907.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,200.00	0.00	0.00	7,007.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,300.00	0.00	0.00	7,107.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,400.00	0.00	0.00	7,207.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,500.00	0.00	0.00	7,307.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,522.09	0.00	0.00	7,330.00	17.16	1,230.13	1,230.25	0.00	0.00	0.00
NI A TOP									
7,600.00	0.00	0.00	7,407.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,700.00	0.00	0.00	7,507.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,800.00	0.00	0.00	7,607.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,900.00	0.00	0.00	7,707.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
7,942.09	0.00	0.00	7,750.00	17.16	1,230.13	1,230.25	0.00	0.00	0.00
CDL TOP									
8,000.00	0.00	0.00	7,807.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
8,025.09	0.00	0.00	7,833.00	17.16	1,230.13	1,230.25	0.00	0.00	0.00
GH TOP									
8,100.00	0.00	0.00	7,907.91	17.16	1,230.13	1,230.25	0.00	0.00	0.00
8,102.09	0.00	0.00	7,910.00	17.16	1,230.13	1,230.25	0.00	0.00	0.00
Xcel 14-27 BHL									

Anadarko Petroleum Corp

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Database:	edmp	Local Co-ordinate Reference:	Well Xcel 14-27
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 14-27	Survey Calculation Method:	Minimum Curvature
Wellbore:	Xcel 14-27		
Design:	Xcel 14-27 (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 14-27 BHL - plan hits target center - Point	0.00	0.00	7,910.00	17.16	1,230.13	1,249,565.60	3,173,846.30	40.016774	-104.879303

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 (°)	
4,552.68	4,362.00	PRKM TOP				
5,008.09	4,816.00	SX TOP				
7,522.09	7,330.00	NI A TOP				
7,942.09	7,750.00	CDL TOP				
8,025.09	7,833.00	GH TOP				