

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_LAMBRECHT 1-2 PAD

LAMBRECHT 41-2

LAMBRECHT 41-2

Plan: LAMBRECHT 41-2 (wp02)

Standard Planning Report

10 April, 2012

Project: COLORADO NORTHERN ZONE - 83
Site: WELD LAMBRECHT 1-2 PAD
Well: LAMBRECHT 41-2
Wellbore: LAMBRECHT 41-2
Section:
SHL:
Design: LAMBRECHT 41-2 (wp02)
Latitude: 40.085694
Longitude: -104.850252
GL: 4939.00
KB: rkv + gl @ 4954.00ft

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4038.00	4136.23	PK Depth
4498.00	4596.23	SX Depth
7218.00	7316.23	NIO Depth
7528.00	7626.23	CD Depth
7616.00	7714.23	GH Depth
7968.00	8066.23	J Depth

WELL DETAILS: LAMBRECHT 41-2

			Ground Level:	4939.00			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		Slot
0.00	0.00	1274729.10	3181798.88	40.085694	-104.850252		

CASING DETAILS

TVD	MD	Name	Size
915.00	919.82	8-5/8"	8-5/8"



Azimuths to True North
Magnetic North: 8.95°

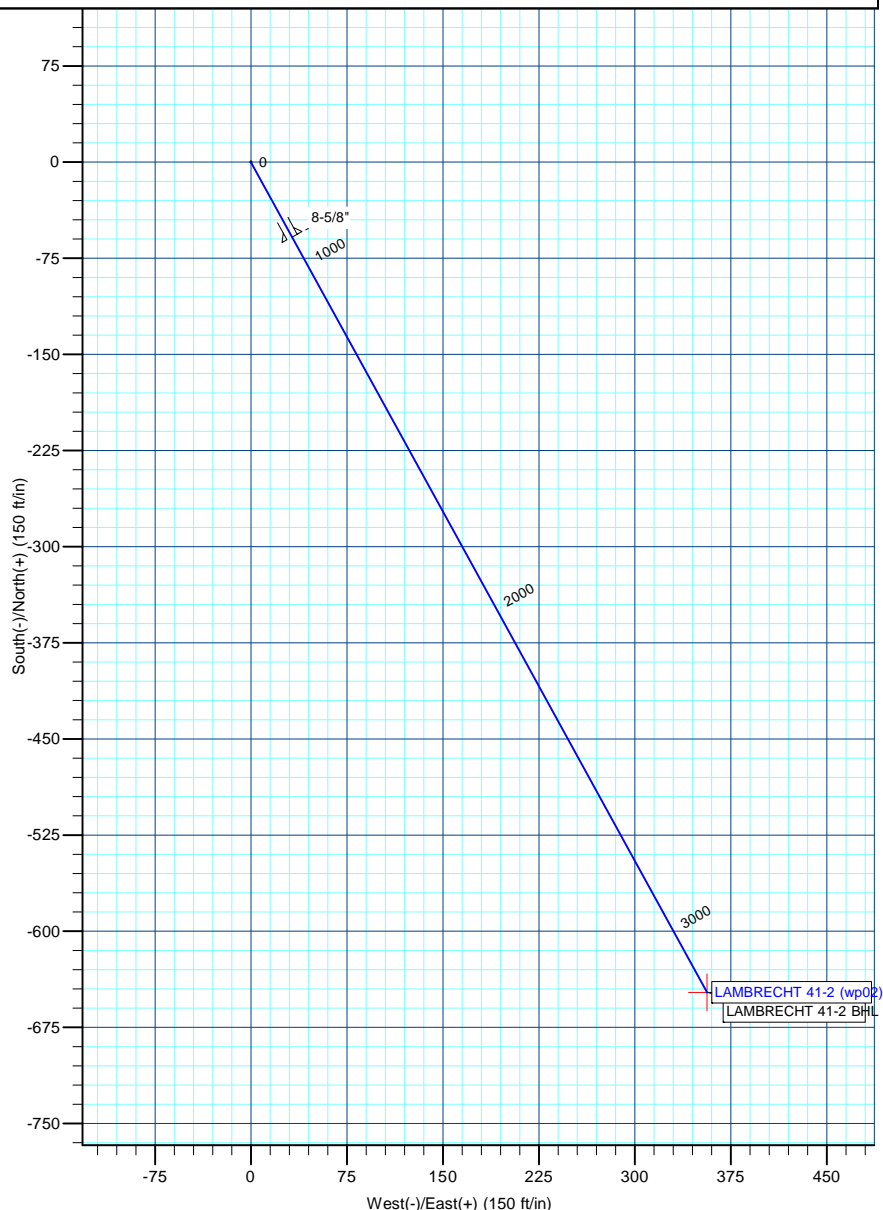
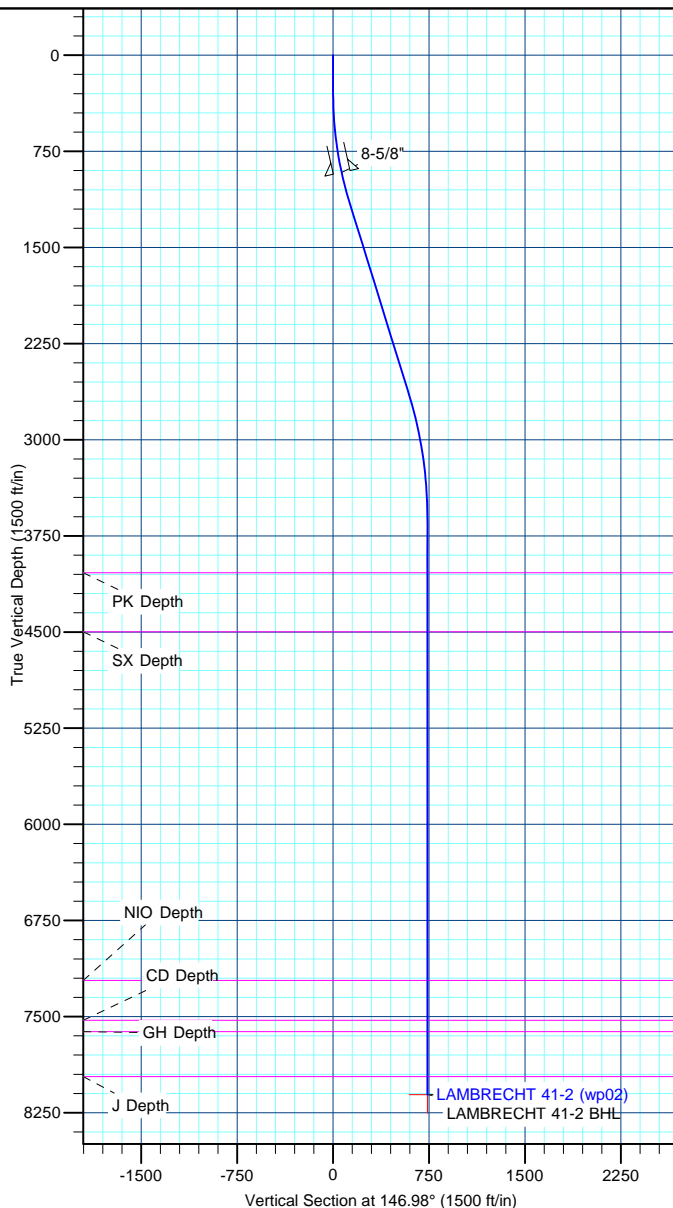
Magnetic Field
Strength: 53010.7nT
Dip Angle: 66.80°
Date: 12/6/2010
Model: IGRF2010

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LAMBRECHT 41-2 BHL	8108.00	-647.68	356.48	1274084.06	3182160.09	40.083916	-104.848978	Point

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
1164.73	17.29	151.17	1151.66	-113.47	62.45	2.00	151.17	129.17
2717.97	17.29	151.17	2634.68	-518.00	285.10	0.00	0.00	589.69
3706.23	0.00	0.00	3608.00	-647.68	356.48	1.75	180.00	737.32
8206.23	0.00	0.00	8108.00	-647.68	356.48	0.00	0.00	737.32



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well LAMBRECHT 41-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	rkv + gl @ 4954.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	rkv + gl @ 4954.00ft
Site:	WELD_LAMBRECHT 1-2 PAD	North Reference:	True
Well:	LAMBRECHT 41-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	LAMBRECHT 41-2		
Design:	LAMBRECHT 41-2 (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_LAMBRECHT 1-2 PAD			
Site Position:		Northing:	1,274,749.10 usft	Latitude: 40.085753
From:	Lat/Long	Easting:	3,181,594.19 usft	Longitude: -104.850983
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence: 0.42 °

Well	LAMBRECHT 41-2			
Well Position	+N/-S	-21.50 ft	Northing:	1,274,729.10 usft
	+E/-W	204.54 ft	Easting:	3,181,798.88 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 4,939.00 ft

Wellbore	LAMBRECHT 41-2				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/6/2010	8.95	66.80	53,011

Design	LAMBRECHT 41-2 (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	146.98

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	
1,164.73	17.29	151.17	1,151.66	-113.47	62.45	2.00	2.00	0.00	151.17	
2,717.97	17.29	151.17	2,634.68	-518.00	285.10	0.00	0.00	0.00	0.00	
3,706.23	0.00	0.00	3,608.00	-647.68	356.48	1.75	-1.75	0.00	180.00	
8,206.23	0.00	0.00	8,108.00	-647.68	356.48	0.00	0.00	0.00	0.00	LAMBRECHT 41-2 BI

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well LAMBRECHT 41-2
Company:	US ROCKIES REGION PLANNING	TVD Reference:	rkv + gl @ 4954.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	rkv + gl @ 4954.00ft
Site:	WELD_LAMBRECHT 1-2 PAD	North Reference:	True
Well:	LAMBRECHT 41-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	LAMBRECHT 41-2		
Design:	LAMBRECHT 41-2 (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	151.17	399.98	-1.53	0.84	1.74	2.00	2.00	0.00
500.00	4.00	151.17	499.84	-6.11	3.36	6.96	2.00	2.00	0.00
600.00	6.00	151.17	599.45	-13.75	7.57	15.65	2.00	2.00	0.00
700.00	8.00	151.17	698.70	-24.42	13.44	27.81	2.00	2.00	0.00
800.00	10.00	151.17	797.47	-38.13	20.99	43.41	2.00	2.00	0.00
900.00	12.00	151.17	895.62	-54.84	30.19	62.43	2.00	2.00	0.00
919.82	12.40	151.17	915.00	-58.51	32.21	66.61	2.00	2.00	0.00
8-5/8"									
1,000.00	14.00	151.17	993.06	-74.55	41.03	84.87	2.00	2.00	0.00
1,100.00	16.00	151.17	1,089.64	-97.22	53.51	110.68	2.00	2.00	0.00
1,164.73	17.29	151.17	1,151.66	-113.47	62.45	129.17	2.00	2.00	0.00
1,200.00	17.29	151.17	1,185.33	-122.65	67.51	139.63	0.00	0.00	0.00
1,300.00	17.29	151.17	1,280.81	-148.70	81.84	169.28	0.00	0.00	0.00
1,400.00	17.29	151.17	1,376.29	-174.74	96.18	198.93	0.00	0.00	0.00
1,500.00	17.29	151.17	1,471.77	-200.79	110.51	228.58	0.00	0.00	0.00
1,600.00	17.29	151.17	1,567.25	-226.83	124.85	258.23	0.00	0.00	0.00
1,700.00	17.29	151.17	1,662.73	-252.88	139.18	287.87	0.00	0.00	0.00
1,800.00	17.29	151.17	1,758.21	-278.92	153.52	317.52	0.00	0.00	0.00
1,900.00	17.29	151.17	1,853.69	-304.96	167.85	347.17	0.00	0.00	0.00
2,000.00	17.29	151.17	1,949.17	-331.01	182.18	376.82	0.00	0.00	0.00
2,100.00	17.29	151.17	2,044.64	-357.05	196.52	406.47	0.00	0.00	0.00
2,200.00	17.29	151.17	2,140.12	-383.10	210.85	436.12	0.00	0.00	0.00
2,300.00	17.29	151.17	2,235.60	-409.14	225.19	465.77	0.00	0.00	0.00
2,400.00	17.29	151.17	2,331.08	-435.18	239.52	495.42	0.00	0.00	0.00
2,500.00	17.29	151.17	2,426.56	-461.23	253.86	525.07	0.00	0.00	0.00
2,600.00	17.29	151.17	2,522.04	-487.27	268.19	554.71	0.00	0.00	0.00
2,700.00	17.29	151.17	2,617.52	-513.32	282.53	584.36	0.00	0.00	0.00
2,717.97	17.29	151.17	2,634.68	-518.00	285.10	589.69	0.00	0.00	0.00
2,800.00	15.86	151.17	2,713.29	-538.50	296.39	613.03	1.75	-1.75	0.00
2,900.00	14.11	151.17	2,809.89	-561.15	308.85	638.82	1.75	-1.75	0.00
3,000.00	12.36	151.17	2,907.23	-581.20	319.89	661.65	1.75	-1.75	0.00
3,100.00	10.61	151.17	3,005.22	-598.65	329.49	681.50	1.75	-1.75	0.00
3,200.00	8.86	151.17	3,103.78	-613.46	337.64	698.36	1.75	-1.75	0.00
3,300.00	7.11	151.17	3,202.81	-625.62	344.34	712.22	1.75	-1.75	0.00
3,400.00	5.36	151.17	3,302.21	-635.14	349.58	723.04	1.75	-1.75	0.00
3,500.00	3.61	151.17	3,401.90	-641.99	353.35	730.84	1.75	-1.75	0.00
3,600.00	1.86	151.17	3,501.79	-646.17	355.65	735.60	1.75	-1.75	0.00
3,700.00	0.11	151.17	3,601.77	-647.67	356.47	737.31	1.75	-1.75	0.00
3,706.23	0.00	0.00	3,608.00	-647.68	356.48	737.32	1.75	-1.75	0.00
3,800.00	0.00	0.00	3,701.77	-647.68	356.48	737.32	0.00	0.00	0.00
3,900.00	0.00	0.00	3,801.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,000.00	0.00	0.00	3,901.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,100.00	0.00	0.00	4,001.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,136.23	0.00	0.00	4,038.00	-647.68	356.48	737.32	0.00	0.00	0.00
PK Depth									
4,200.00	0.00	0.00	4,101.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,300.00	0.00	0.00	4,201.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,400.00	0.00	0.00	4,301.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,500.00	0.00	0.00	4,401.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,596.23	0.00	0.00	4,498.00	-647.68	356.48	737.32	0.00	0.00	0.00

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Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	rkv + gl @ 4954.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	rkv + gl @ 4954.00ft
Site:	WELD_LAMBRECHT 1-2 PAD	North Reference:	True
Well:	LAMBRECHT 41-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	LAMBRECHT 41-2		
Design:	LAMBRECHT 41-2 (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)
SX Depth									
4,600.00	0.00	0.00	4,501.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,700.00	0.00	0.00	4,601.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,800.00	0.00	0.00	4,701.77	-647.68	356.48	737.32	0.00	0.00	0.00
4,900.00	0.00	0.00	4,801.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,000.00	0.00	0.00	4,901.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,100.00	0.00	0.00	5,001.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,200.00	0.00	0.00	5,101.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,300.00	0.00	0.00	5,201.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,400.00	0.00	0.00	5,301.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,500.00	0.00	0.00	5,401.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,600.00	0.00	0.00	5,501.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,700.00	0.00	0.00	5,601.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,800.00	0.00	0.00	5,701.77	-647.68	356.48	737.32	0.00	0.00	0.00
5,900.00	0.00	0.00	5,801.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,000.00	0.00	0.00	5,901.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,100.00	0.00	0.00	6,001.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,200.00	0.00	0.00	6,101.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,300.00	0.00	0.00	6,201.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,400.00	0.00	0.00	6,301.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,500.00	0.00	0.00	6,401.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,600.00	0.00	0.00	6,501.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,700.00	0.00	0.00	6,601.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,800.00	0.00	0.00	6,701.77	-647.68	356.48	737.32	0.00	0.00	0.00
6,900.00	0.00	0.00	6,801.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,000.00	0.00	0.00	6,901.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,100.00	0.00	0.00	7,001.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,200.00	0.00	0.00	7,101.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,300.00	0.00	0.00	7,201.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,316.23	0.00	0.00	7,218.00	-647.68	356.48	737.32	0.00	0.00	0.00
NIO Depth									
7,400.00	0.00	0.00	7,301.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,500.00	0.00	0.00	7,401.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,600.00	0.00	0.00	7,501.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,626.23	0.00	0.00	7,528.00	-647.68	356.48	737.32	0.00	0.00	0.00
CD Depth									
7,700.00	0.00	0.00	7,601.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,714.23	0.00	0.00	7,616.00	-647.68	356.48	737.32	0.00	0.00	0.00
GH Depth									
7,800.00	0.00	0.00	7,701.77	-647.68	356.48	737.32	0.00	0.00	0.00
7,900.00	0.00	0.00	7,801.77	-647.68	356.48	737.32	0.00	0.00	0.00
8,000.00	0.00	0.00	7,901.77	-647.68	356.48	737.32	0.00	0.00	0.00
8,066.23	0.00	0.00	7,968.00	-647.68	356.48	737.32	0.00	0.00	0.00
J Depth									
8,100.00	0.00	0.00	8,001.77	-647.68	356.48	737.32	0.00	0.00	0.00
8,200.00	0.00	0.00	8,101.77	-647.68	356.48	737.32	0.00	0.00	0.00
8,206.23	0.00	0.00	8,108.00	-647.68	356.48	737.32	0.00	0.00	0.00
LAMBRECHT 41-2 BHL									

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	rkv + gl @ 4954.00ft
Site:	WELD_LAMBRECHT 1-2 PAD	North Reference:	True
Well:	LAMBRECHT 41-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	LAMBRECHT 41-2		
Design:	LAMBRECHT 41-2 (wp02)		

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									
LAMBRECHT 41-2 BHL	0.00	0.00	8,108.00	-647.68	356.48	1,274,084.05	3,182,160.09	40.083916	-104.848978
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
919.82	915.00	8-5/8"		8-5/8	11

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
4,136.23	4,038.00	PK Depth				
4,596.23	4,498.00	SX Depth				
7,316.23	7,218.00	NIO Depth				
7,626.23	7,528.00	CD Depth				
7,714.23	7,616.00	GH Depth				
8,066.23	7,968.00	J Depth				