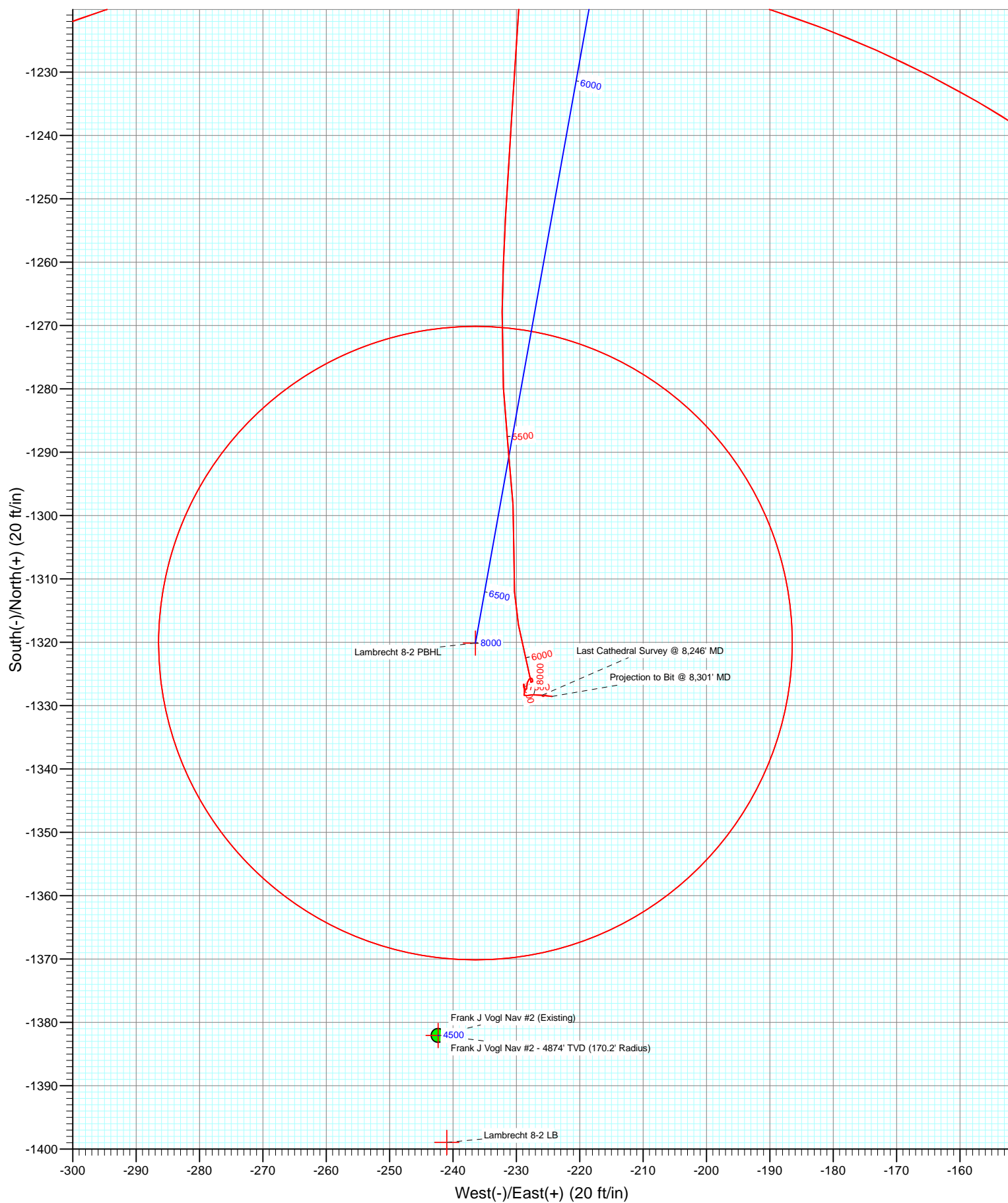


Azimuths to True North
Magnetic North: 8.74°

Magnetic Field
Strength: 52842.2snT
Dip Angle: 66.75°
Date: 7/13/2012
Model: IGRF2010

FINAL Lambrecht 8-2 125424 177455; LR Well @ 4953.0ft (Xtreme 11) GL @ 4938.0 North American Datum 1983 Well Lambrecht 8-2, True North						
Type	Target	Azimuth	Origin Type	N/S	E/W	From TVD
Target	Lambrecht 8-2 PBHL	190.15	Slot	0.0	0.0	0.0
		TV	+N/-S	+E/-W	Latitude	Longitude
		-8109.0	-1398.9	-241.0	40.081884	-104.851155
		8109.0	1398.9	241.0	40.081884	-104.851155



Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Lambrecht 8-2
Project:	DJ Wattenberg	TVD Reference:	Well @ 4953.0ft (Xtreme 11)
Site:	S2-T1N-R67W (Lambrecht)	MD Reference:	Well @ 4953.0ft (Xtreme 11)
Well:	Lambrecht 8-2	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S2-T1N-R67W (Lambrecht)			
Site Position:		Northing:	1,274,774.66 ft	Latitude:	40.085813
From:	Lat/Long	Easting:	3,181,757.64 ft	Longitude:	-104.850421
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.42 °

Well	Lambrecht 8-2					
Well Position	+N/-S	0.0 ft	Northing:	1,274,742.49 ft	Latitude:	40.085724
	+E/-W	0.0 ft	Easting:	3,181,793.41 ft	Longitude:	-104.850294
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,938.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/13/2012	8.74	66.75	52,842

Design	FINAL			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	190.15

Survey Program	Date	7/18/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
105.0	8,301.0	Survey #1 (DD)	MWD	Geolink MWD	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	Lambrecht 8-2 LB
105.0	1.10	322.50	105.0	0.8	-0.6	-0.7	1.05	1.05	
194.0	1.10	239.90	194.0	1.0	-1.9	-0.7	1.63	0.00	
282.0	1.50	187.10	282.0	-0.5	-2.7	1.0	1.38	0.45	
369.0	2.90	179.00	368.9	-3.8	-2.8	4.3	1.64	1.61	
462.0	5.50	180.00	461.6	-10.7	-2.8	11.0	2.80	2.80	
553.0	7.90	185.90	552.0	-21.2	-3.5	21.5	2.74	2.64	
643.0	9.70	187.60	640.9	-34.9	-5.1	35.3	2.02	2.00	
734.0	10.80	191.10	730.5	-50.9	-7.7	51.4	1.39	1.21	
825.0	12.80	199.80	819.6	-68.7	-12.8	69.9	2.94	2.20	
903.0	14.20	194.40	895.4	-86.1	-18.1	88.0	2.41	1.79	
974.0	15.00	197.10	964.1	-103.3	-23.0	105.8	1.48	1.13	
1,064.0	16.70	195.30	1,050.7	-127.0	-29.8	130.2	1.97	1.89	

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Lambrecht 8-2
Project:	DJ Wattenberg	TVD Reference:	Well @ 4953.0ft (Xtreme 11)
Site:	S2-T1N-R67W (Lambrecht)	MD Reference:	Well @ 4953.0ft (Xtreme 11)
Well:	Lambrecht 8-2	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,155.0	17.30	189.90	1,137.7	-152.9	-35.6	156.8	1.86	0.66	
1,246.0	18.50	180.40	1,224.3	-180.7	-38.0	184.5	3.46	1.32	
1,337.0	18.40	180.90	1,310.7	-209.5	-38.3	212.9	0.21	-0.11	
1,428.0	17.50	184.30	1,397.2	-237.5	-39.6	240.7	1.52	-0.99	
1,518.0	17.80	190.70	1,483.0	-264.5	-43.2	268.0	2.18	0.33	
1,609.0	17.10	192.10	1,569.8	-291.2	-48.6	295.2	0.90	-0.77	
1,700.0	16.50	189.60	1,656.9	-317.1	-53.5	321.5	1.03	-0.66	
1,791.0	15.80	191.60	1,744.4	-341.9	-58.2	346.8	0.98	-0.77	
1,882.0	14.80	192.00	1,832.1	-365.4	-63.1	370.8	1.10	-1.10	
1,973.0	13.70	192.00	1,920.3	-387.4	-67.7	393.2	1.21	-1.21	
2,063.0	14.80	195.90	2,007.6	-408.8	-73.1	415.3	1.62	1.22	
2,154.0	13.50	194.20	2,095.8	-430.3	-78.9	437.5	1.50	-1.43	
2,245.0	14.50	196.80	2,184.1	-451.5	-84.8	459.4	1.30	1.10	
2,335.0	15.40	192.10	2,271.0	-474.0	-90.5	482.5	1.68	1.00	
2,426.0	16.30	188.70	2,358.6	-498.4	-95.0	507.4	1.42	0.99	
2,517.0	15.30	188.10	2,446.1	-522.9	-98.6	532.1	1.11	-1.10	
2,608.0	14.00	189.80	2,534.2	-545.7	-102.2	555.1	1.50	-1.43	
2,698.0	14.50	185.40	2,621.4	-567.6	-105.1	577.3	1.33	0.56	
2,789.0	14.90	181.20	2,709.4	-590.7	-106.4	600.2	1.25	0.44	
2,880.0	14.30	185.80	2,797.5	-613.5	-107.8	622.9	1.43	-0.66	
2,971.0	15.00	194.60	2,885.6	-636.1	-111.9	645.9	2.56	0.77	
3,062.0	16.00	195.10	2,973.2	-659.6	-118.1	670.1	1.11	1.10	
3,152.0	14.30	198.40	3,060.1	-682.1	-124.9	693.5	2.12	-1.89	
3,243.0	16.00	192.30	3,148.0	-705.1	-131.1	717.1	2.56	1.87	
3,334.0	16.60	189.00	3,235.3	-730.2	-135.8	742.7	1.21	0.66	
3,425.0	15.10	188.70	3,322.8	-754.7	-139.6	767.5	1.65	-1.65	
3,515.0	16.30	191.60	3,409.5	-778.7	-143.9	791.9	1.59	1.33	
3,606.0	15.60	193.20	3,497.0	-803.1	-149.3	816.8	0.91	-0.77	
3,697.0	17.00	186.80	3,584.3	-828.2	-153.7	842.3	2.50	1.54	
3,788.0	15.90	185.80	3,671.6	-853.8	-156.5	868.1	1.25	-1.21	
3,878.0	16.10	186.30	3,758.1	-878.5	-159.1	892.8	0.27	0.22	
3,969.0	16.30	192.30	3,845.5	-903.5	-163.2	918.1	1.85	0.22	
4,060.0	17.80	192.30	3,932.5	-929.6	-168.9	944.8	1.65	1.65	
4,151.0	15.90	192.20	4,019.6	-955.4	-174.5	971.2	2.09	-2.09	
4,242.0	14.50	196.30	4,107.4	-978.5	-180.3	995.0	1.94	-1.54	
4,332.0	15.80	190.90	4,194.3	-1,001.3	-185.8	1,018.4	2.13	1.44	
4,423.0	15.20	191.50	4,282.0	-1,025.2	-190.5	1,042.7	0.68	-0.66	
4,514.0	14.20	192.10	4,370.0	-1,047.8	-195.3	1,065.8	1.11	-1.10	
4,604.0	14.90	191.60	4,457.1	-1,069.9	-199.9	1,088.4	0.79	0.78	
4,695.0	13.10	186.90	4,545.4	-1,091.6	-203.5	1,110.4	2.34	-1.98	
4,786.0	12.70	186.70	4,634.1	-1,111.8	-205.9	1,130.7	0.44	-0.44	
4,877.0	13.40	190.00	4,722.8	-1,132.1	-208.9	1,151.2	1.12	0.77	
4,967.0	16.00	197.40	4,809.8	-1,154.2	-214.4	1,174.0	3.56	2.89	
5,058.0	15.60	192.30	4,897.4	-1,178.2	-220.8	1,198.6	1.59	-0.44	
5,149.0	13.30	195.60	4,985.5	-1,200.2	-226.2	1,221.3	2.68	-2.53	
5,239.0	11.70	183.60	5,073.4	-1,219.3	-229.6	1,240.6	3.38	-1.78	
5,330.0	10.70	183.90	5,162.6	-1,236.9	-230.7	1,258.2	1.10	-1.10	
5,421.0	9.90	183.10	5,252.2	-1,253.2	-231.7	1,274.4	0.89	-0.88	
5,512.0	8.60	180.70	5,342.0	-1,267.8	-232.2	1,288.8	1.49	-1.43	
5,602.0	6.80	177.10	5,431.2	-1,279.8	-232.0	1,300.7	2.07	-2.00	
5,693.0	5.80	173.50	5,521.6	-1,289.8	-231.2	1,310.3	1.18	-1.10	
5,784.0	5.00	177.10	5,612.2	-1,298.3	-230.5	1,318.6	0.95	-0.88	
5,875.0	4.30	181.30	5,702.9	-1,305.7	-230.4	1,325.8	0.85	-0.77	

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Lambrecht 8-2
Project:	DJ Wattenberg	TVD Reference:	Well @ 4953.0ft (Xtreme 11)
Site:	S2-T1N-R67W (Lambrecht)	MD Reference:	Well @ 4953.0ft (Xtreme 11)
Well:	Lambrecht 8-2	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
5,965.0	3.80	176.40	5,792.7	-1,312.0	-230.3	1,332.1	0.68	-0.56	
6,056.0	2.80	169.00	5,883.5	-1,317.2	-229.7	1,337.1	1.19	-1.10	
6,147.0	2.60	165.80	5,974.4	-1,321.4	-228.7	1,341.0	0.28	-0.22	
6,238.0	1.60	170.50	6,065.4	-1,324.6	-228.0	1,344.1	1.11	-1.10	
6,329.0	0.30	151.00	6,156.4	-1,326.1	-227.7	1,345.5	1.45	-1.43	
6,419.0	0.20	293.90	6,246.4	-1,326.2	-227.7	1,345.6	0.53	-0.11	
6,510.0	0.20	120.10	6,337.4	-1,326.3	-227.7	1,345.6	0.44	0.00	
6,601.0	0.10	295.20	6,428.4	-1,326.3	-227.7	1,345.7	0.33	-0.11	
6,692.0	0.20	82.10	6,519.4	-1,326.3	-227.6	1,345.6	0.32	0.11	
6,782.0	0.00	242.50	6,609.4	-1,326.2	-227.4	1,345.6	0.22	-0.22	
6,873.0	0.30	359.40	6,700.4	-1,326.0	-227.4	1,345.3	0.33	0.33	
6,964.0	0.10	279.50	6,791.4	-1,325.7	-227.5	1,345.1	0.33	-0.22	
7,055.0	0.10	311.10	6,882.4	-1,325.7	-227.7	1,345.0	0.06	0.00	
7,145.0	0.40	233.80	6,972.4	-1,325.8	-228.0	1,345.2	0.43	0.33	
7,236.0	0.50	186.60	7,063.4	-1,326.4	-228.3	1,345.9	0.41	0.11	
7,327.0	0.70	186.60	7,154.4	-1,327.3	-228.4	1,346.8	0.22	0.22	
7,418.0	0.50	336.70	7,245.4	-1,327.5	-228.6	1,347.0	1.28	-0.22	
7,509.0	0.50	351.00	7,336.3	-1,326.8	-228.8	1,346.3	0.14	0.00	
7,599.0	0.30	174.80	7,426.3	-1,326.6	-228.9	1,346.2	0.89	-0.22	
7,690.0	0.20	179.20	7,517.3	-1,327.0	-228.8	1,346.6	0.11	-0.11	
7,781.0	0.40	159.10	7,608.3	-1,327.5	-228.7	1,347.0	0.25	0.22	
7,872.0	0.30	207.00	7,699.3	-1,328.0	-228.7	1,347.5	0.33	-0.11	
7,962.0	0.20	170.70	7,789.3	-1,328.3	-228.8	1,347.9	0.20	-0.11	
8,053.0	0.60	78.30	7,880.3	-1,328.4	-228.3	1,347.8	0.70	0.44	
8,144.0	0.40	86.60	7,971.3	-1,328.3	-227.5	1,347.6	0.23	-0.22	
8,246.0	1.40	94.30	8,073.3	-1,328.4	-225.9	1,347.4	0.99	0.98	Last Cathedral Survey @ 8,246' MD
8,279.3	1.70	97.07	8,106.6	-1,328.5	-225.0	1,347.3	0.93	0.91	Lambrecht 8-2 PBHL
8,301.0	1.90	98.40	8,128.3	-1,328.5	-224.3	1,347.3	0.93	0.91	Projection to Bit @ 8,301' MD

Targets									
Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	
Lambrecht 8-2 PBHL	- Shape	0.00	0.00	8,107.0	-1,320.1	-236.4	1,273,420.66	3,181,566.64	
	- survey misses target center by 14.1ft at 8279.3ft MD (8106.6 TVD, -1328.5 N, -225.0 E)								
	- Circle (radius 50.0)								
Lambrecht 8-2 LB	- Shape	0.00	0.00	-8,109.0	-1,398.9	-241.0	1,273,341.82	3,181,562.70	
	- survey misses target center by 8232.3ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)								
	- Rectangle (sides W400.0 H400.0 D0.0)								

Survey Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
8,246.0	8,073.3	-1,328.4	-225.9	Last Cathedral Survey @ 8,246' MD	
8,301.0	8,128.3	-1,328.5	-224.3	Projection to Bit @ 8,301' MD	

Checked By: _____ Approved By: _____ Date: _____