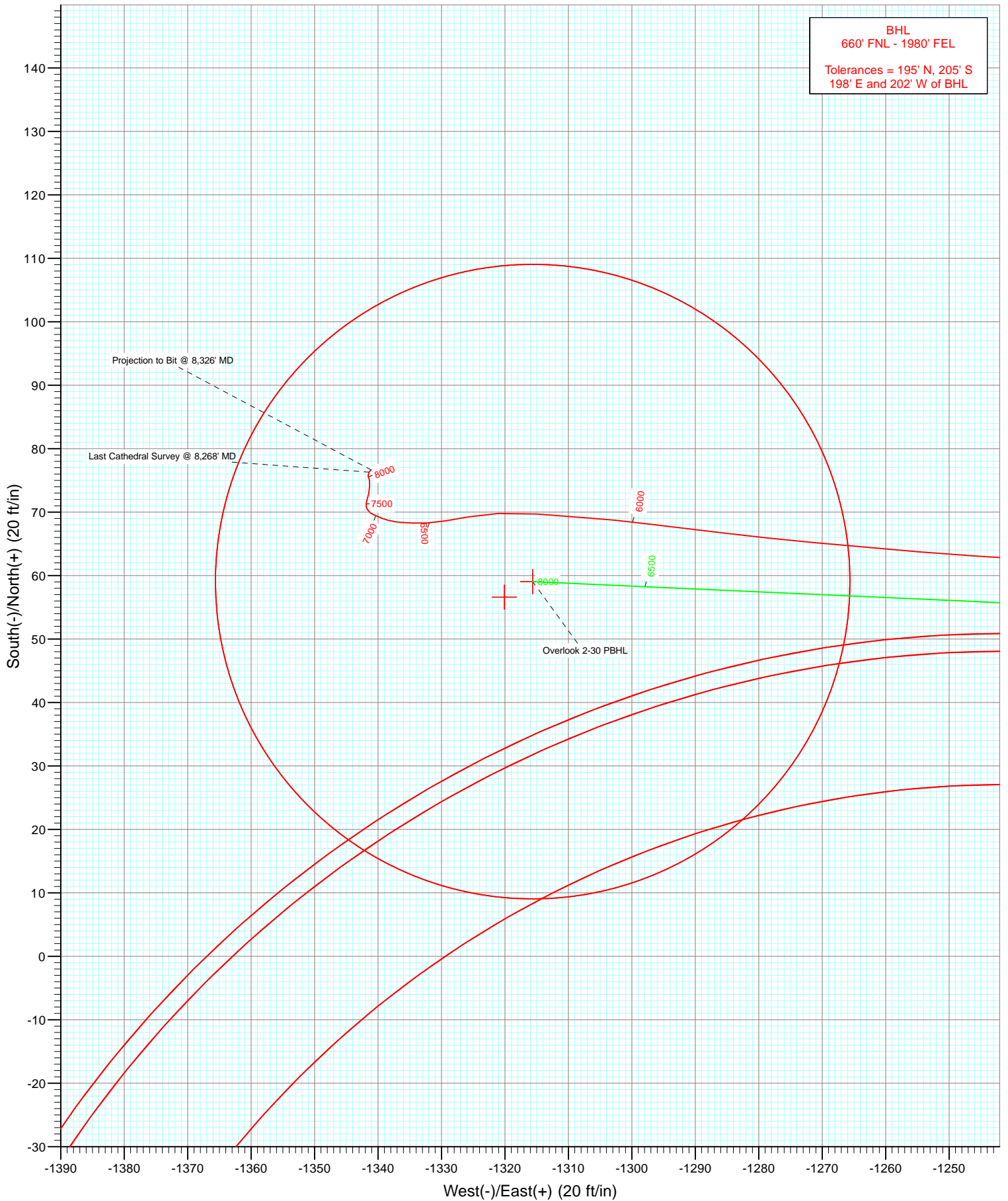


Azimuths to True North
Magnetic North: 8.79°

Magnetic Field
Strength: 52859.7snT
Dip Angle: 66.76°
Date: 6/5/2012
Model: IGRF2010

FINAL Overlook 2-30 125356; 166455; DN KB=15' @ 5025.0ft (Xtreme 14) North American Datum 1983 Well Overlook 2-30, True North						
Type	Target	Azimuth	Origin	Type	N/S	E/W
Target	Overlook 2-30 PBHL	272.57	Slot		0.0	0.0
						From TVD
						0.0
Name	TVDD	+N/-S	+E/-W	Latitude	Longitude	
Sec 30 - Legal Box 2	-10000.0	56.6	-1320.1	40.114939	-104.930876	
Sec 30 - Legal Box 7	-10000.0	-1274.2	-1325.0	40.111286	-104.930893	
Sec 30 - Legal Box 8	-10000.0	-1286.6	-10.8	40.111252	-104.926195	
Overlook 2-30 PBHL	8183.0	59.1	-1315.6	40.114946	-104.930860	



Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Overlook 2-30
Project:	DJ Wattenberg	TVD Reference:	KB=15' @ 5025.0ft (Xtreme 14)
Site:	NENE Sec30-T2N-R67W (Overlook 1-30 pad)	MD Reference:	KB=15' @ 5025.0ft (Xtreme 14)
Well:	Overlook 2-30	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		NENE Sec30-T2N-R67W (Overlook 1-30 pad)			
Site Position:		Northing:	1,285,208.05 ft	Latitude:	40.114856
From:	Lat/Long	Easting:	3,160,505.89 ft	Longitude:	-104.926131
Position Uncertainty:	0.0 ft	Slot Radius:	13.200 in	Grid Convergence:	0.37 °

Well		Overlook 2-30				
Well Position	+N/-S	0.0 ft	Northing:	1,285,181.76 ft	Latitude:	40.114784
	+E/-W	0.0 ft	Easting:	3,160,499.07 ft	Longitude:	-104.926156
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,010.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/5/2012	8.79	66.76	52,860

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	272.57	

Survey Program	Date	6/27/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
111.0	8,326.0	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	Sec 30 - Legal Box 7 - Sec 30 - Legal Box 8 - Se	
111.0	0.20	139.40	111.0	-0.1	0.1	-0.1	0.18	0.18		
204.0	0.90	278.80	204.0	-0.2	-0.5	0.5	1.14	0.75		
297.0	2.00	256.40	297.0	-0.4	-2.8	2.8	1.31	1.18		
405.0	3.40	259.60	404.8	-1.4	-7.8	7.7	1.30	1.30		
491.0	5.10	263.70	490.6	-2.3	-14.1	14.0	2.01	1.98		
580.0	6.50	270.50	579.1	-2.7	-23.0	22.9	1.75	1.57		
668.0	8.00	274.50	666.4	-2.2	-34.1	34.0	1.80	1.70		
757.0	9.20	276.20	754.4	-0.9	-47.4	47.3	1.38	1.35		
837.0	9.90	275.20	833.3	0.4	-60.6	60.5	0.90	0.87		
921.0	9.50	274.60	916.1	1.6	-74.7	74.7	0.49	-0.48		
1,009.0	11.30	282.50	1,002.7	4.0	-90.3	90.4	2.61	2.05		
1,098.0	12.80	280.80	1,089.7	7.8	-108.5	108.8	1.73	1.69		

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Overlook 2-30
Project:	DJ Wattenberg	TVD Reference:	KB=15' @ 5025.0ft (Xtreme 14)
Site:	NENE Sec30-T2N-R67W (Overlook 1-30 pad)	MD Reference:	KB=15' @ 5025.0ft (Xtreme 14)
Well:	Overlook 2-30	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
1,186.0	14.60	277.40	1,175.2	11.0	-129.1	129.5	2.24	2.05	
1,274.0	14.70	270.80	1,260.4	12.6	-151.3	151.7	1.90	0.11	
1,361.0	14.30	270.50	1,344.6	12.9	-173.1	173.5	0.47	-0.46	
1,451.0	13.90	267.90	1,431.9	12.6	-195.0	195.4	0.83	-0.44	
1,539.0	13.10	267.40	1,517.4	11.7	-215.5	215.8	0.92	-0.91	
1,629.0	13.10	272.50	1,605.1	11.7	-235.9	236.2	1.28	0.00	
1,718.0	14.50	272.60	1,691.5	12.6	-257.1	257.4	1.57	1.57	
1,806.0	13.30	272.10	1,777.0	13.5	-278.2	278.5	1.37	-1.36	
1,894.0	13.60	273.40	1,862.5	14.5	-298.7	299.0	0.48	0.34	
1,982.0	14.30	274.80	1,947.9	16.0	-319.8	320.2	0.88	0.80	
2,072.0	13.20	274.20	2,035.4	17.7	-341.1	341.6	1.23	-1.22	
2,159.0	13.80	274.90	2,120.0	19.3	-361.4	361.9	0.71	0.69	
2,248.0	14.50	272.60	2,206.3	20.7	-383.1	383.6	1.01	0.79	
2,337.0	14.70	274.80	2,292.4	22.2	-405.5	406.1	0.66	0.22	
2,426.0	13.00	274.20	2,378.8	23.9	-426.7	427.4	1.92	-1.91	
2,516.0	12.80	273.20	2,466.5	25.2	-446.8	447.4	0.33	-0.22	
2,605.0	13.10	274.60	2,553.3	26.5	-466.7	467.4	0.49	0.34	
2,693.0	14.30	278.60	2,638.8	28.9	-487.4	488.2	1.74	1.36	
2,782.0	14.70	280.70	2,724.9	32.7	-509.3	510.3	0.74	0.45	
2,872.0	15.30	282.80	2,811.9	37.4	-532.1	533.3	0.90	0.67	
2,960.0	15.10	277.90	2,896.8	41.6	-554.8	556.1	1.48	-0.23	
3,049.0	14.40	273.10	2,982.9	43.8	-577.3	578.7	1.58	-0.79	
3,136.0	13.70	269.70	3,067.3	44.3	-598.4	599.8	1.24	-0.80	
3,224.0	13.90	269.80	3,152.7	44.2	-619.4	620.8	0.23	0.23	
3,310.0	14.40	271.20	3,236.1	44.4	-640.4	641.8	0.70	0.58	
3,398.0	14.90	273.30	3,321.2	45.3	-662.7	664.0	0.83	0.57	
3,486.0	14.70	272.60	3,406.3	46.4	-685.1	686.5	0.30	-0.23	
3,574.0	14.30	270.80	3,491.5	47.1	-707.2	708.6	0.68	-0.45	
3,663.0	12.30	269.80	3,578.1	47.2	-727.6	729.0	2.26	-2.25	
3,750.0	11.60	267.60	3,663.2	46.8	-745.6	747.0	0.96	-0.80	
3,839.0	12.40	264.80	3,750.3	45.6	-764.1	765.4	1.11	0.90	
3,928.0	13.30	264.40	3,837.1	43.7	-783.8	785.0	1.02	1.01	
4,016.0	13.00	267.70	3,922.8	42.3	-803.8	804.8	0.92	-0.34	
4,105.0	12.70	276.90	4,009.5	43.1	-823.5	824.6	2.32	-0.34	
4,191.0	13.80	276.00	4,093.3	45.3	-843.1	844.2	1.30	1.28	
4,280.0	15.90	279.40	4,179.3	48.4	-865.6	866.9	2.55	2.36	
4,369.0	15.80	275.90	4,264.9	51.6	-889.7	891.1	1.08	-0.11	
4,458.0	14.00	274.20	4,350.9	53.7	-912.5	914.0	2.08	-2.02	
4,545.0	13.10	270.60	4,435.5	54.6	-932.9	934.4	1.42	-1.03	
4,634.0	13.20	272.60	4,522.1	55.1	-953.1	954.6	0.52	0.11	
4,722.0	14.20	269.50	4,607.6	55.5	-973.9	975.4	1.41	1.14	
4,809.0	15.20	267.60	4,691.8	54.9	-996.0	997.5	1.28	1.15	
4,896.0	15.70	268.50	4,775.6	54.1	-1,019.2	1,020.6	0.64	0.57	
4,986.0	15.30	273.70	4,862.4	54.6	-1,043.2	1,044.6	1.61	-0.44	
5,072.0	14.80	275.10	4,945.4	56.3	-1,065.5	1,066.9	0.72	-0.58	
5,160.0	13.90	274.20	5,030.7	58.1	-1,087.2	1,088.7	1.05	-1.02	
5,248.0	13.70	270.50	5,116.1	58.9	-1,108.2	1,109.7	1.03	-0.23	
5,336.0	14.10	270.10	5,201.6	59.0	-1,129.3	1,130.8	0.47	0.45	
5,424.0	13.70	273.10	5,287.0	59.6	-1,150.4	1,151.9	0.94	-0.45	
5,512.0	13.00	271.60	5,372.6	60.5	-1,170.7	1,172.3	0.89	-0.80	
5,601.0	14.20	270.50	5,459.1	60.8	-1,191.6	1,193.2	1.38	1.35	
5,691.0	14.50	272.60	5,546.3	61.4	-1,213.9	1,215.5	0.67	0.33	
5,780.0	13.50	273.00	5,632.7	62.5	-1,235.4	1,237.0	1.13	-1.12	

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Overlook 2-30
Project:	DJ Wattenberg	TVD Reference:	KB=15' @ 5025.0ft (Xtreme 14)
Site:	NENE Sec30-T2N-R67W (Overlook 1-30 pad)	MD Reference:	KB=15' @ 5025.0ft (Xtreme 14)
Well:	Overlook 2-30	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
5,868.0	11.80	274.60	5,718.5	63.7	-1,254.7	1,256.3	1.97	-1.93	
5,956.0	10.10	275.50	5,804.9	65.2	-1,271.3	1,273.0	1.94	-1.93	
6,044.0	8.50	276.80	5,891.8	66.7	-1,285.5	1,287.2	1.83	-1.82	
6,134.0	7.10	277.00	5,980.9	68.2	-1,297.6	1,299.3	1.56	-1.56	
6,223.0	5.40	273.70	6,069.4	69.1	-1,307.2	1,309.0	1.95	-1.91	
6,313.0	4.50	275.00	6,159.1	69.7	-1,315.0	1,316.8	1.01	-1.00	
6,402.0	3.40	265.40	6,247.8	69.8	-1,321.1	1,322.9	1.44	-1.24	
6,491.0	2.60	261.10	6,336.7	69.3	-1,325.7	1,327.5	0.93	-0.90	
6,581.0	2.20	259.50	6,426.6	68.6	-1,329.4	1,331.2	0.45	-0.44	
6,670.0	1.60	268.50	6,515.6	68.3	-1,332.3	1,334.1	0.75	-0.67	
6,759.0	1.40	271.40	6,604.6	68.3	-1,334.7	1,336.4	0.24	-0.22	
6,848.0	1.10	276.40	6,693.5	68.4	-1,336.6	1,338.3	0.36	-0.34	
6,936.0	0.90	283.40	6,781.5	68.7	-1,338.1	1,339.9	0.27	-0.23	
7,025.0	0.70	290.60	6,870.5	69.0	-1,339.3	1,341.1	0.25	-0.22	
7,113.0	0.40	295.30	6,958.5	69.3	-1,340.1	1,341.8	0.34	-0.34	
7,203.0	0.40	293.90	7,048.5	69.6	-1,340.7	1,342.4	0.01	0.00	
7,291.0	0.30	305.20	7,136.5	69.9	-1,341.1	1,342.9	0.14	-0.11	
7,380.0	0.20	322.30	7,225.5	70.1	-1,341.4	1,343.2	0.14	-0.11	
7,468.0	0.30	317.40	7,313.5	70.4	-1,341.7	1,343.5	0.12	0.11	
7,556.0	0.30	357.40	7,401.5	70.8	-1,341.8	1,343.7	0.23	0.00	
7,644.0	0.30	357.40	7,489.5	71.3	-1,341.9	1,343.7	0.00	0.00	
7,734.0	0.30	15.80	7,579.5	71.7	-1,341.8	1,343.7	0.11	0.00	
7,822.0	0.50	16.50	7,667.5	72.3	-1,341.6	1,343.5	0.23	0.23	
7,911.0	0.60	7.90	7,756.5	73.2	-1,341.5	1,343.4	0.15	0.11	
7,999.0	0.60	6.60	7,844.5	74.1	-1,341.3	1,343.3	0.02	0.00	
8,088.0	0.60	350.30	7,933.5	75.0	-1,341.4	1,343.4	0.19	0.00	
8,174.0	0.40	334.10	8,019.5	75.7	-1,341.6	1,343.6	0.28	-0.23	
8,268.0	0.50	42.30	8,113.5	76.3	-1,341.4	1,343.5	0.54	0.11	Last Cathedral Survey @ 8,268' MD
8,326.0	0.50	42.30	8,171.5	76.7	-1,341.1	1,343.2	0.00	0.00	Projection to Bit @ 8,326' MD - Overlook 2-30 PI

Cathedral Energy Services

Survey Report

Company:	Anadarko Petroleum Corporation	Local Co-ordinate Reference:	Well Overlook 2-30
Project:	DJ Wattenberg	TVD Reference:	KB=15' @ 5025.0ft (Xtreme 14)
Site:	NENE Sec30-T2N-R67W (Overlook 1-30 pad)	MD Reference:	KB=15' @ 5025.0ft (Xtreme 14)
Well:	Overlook 2-30	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
Sec 30 - Legal Box 7	0.00	0.00	-10,000.0	-1,274.2	-1,325.0	1,283,898.98	3,159,182.38	40.111286	-104.930893
- actual wellpath misses target center by 10167.6ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Rectangle (sides W400.0 H400.0 D0.0)									
Overlook 2-30 PBHL	0.00	0.00	8,183.0	59.1	-1,315.6	1,285,232.31	3,159,183.09	40.114946	-104.930860
- actual wellpath misses target center by 33.0ft at 8326.0ft MD (8171.5 TVD, 76.7 N, -1341.1 E)									
- Circle (radius 50.0)									
Sec 30 - Legal Box 8	0.00	0.00	-10,000.0	-1,286.6	-10.8	1,283,895.11	3,160,496.56	40.111252	-104.926195
- actual wellpath misses target center by 10082.4ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Rectangle (sides W400.0 H400.0 D0.0)									
Sec 30 - Legal Box 2	0.00	0.00	-10,000.0	56.6	-1,320.1	1,285,229.82	3,159,178.64	40.114939	-104.930876
- actual wellpath misses target center by 10086.9ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Rectangle (sides W400.0 H400.0 D0.0)									

Design Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W		
(ft)	(ft)	(ft)	(ft)	Comment	
8,268.0	8,113.5	76.3	-1,341.4	Last Cathedral Survey @ 8,268' MD	
8,326.0	8,171.5	76.7	-1,341.1	Projection to Bit @ 8,326' MD	

Checked By: _____ Approved By: _____ Date: _____