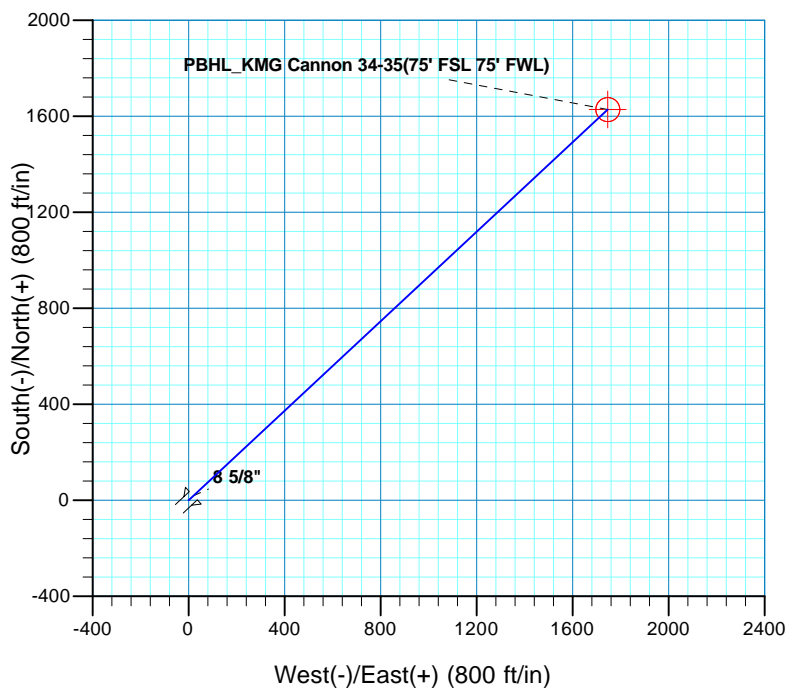
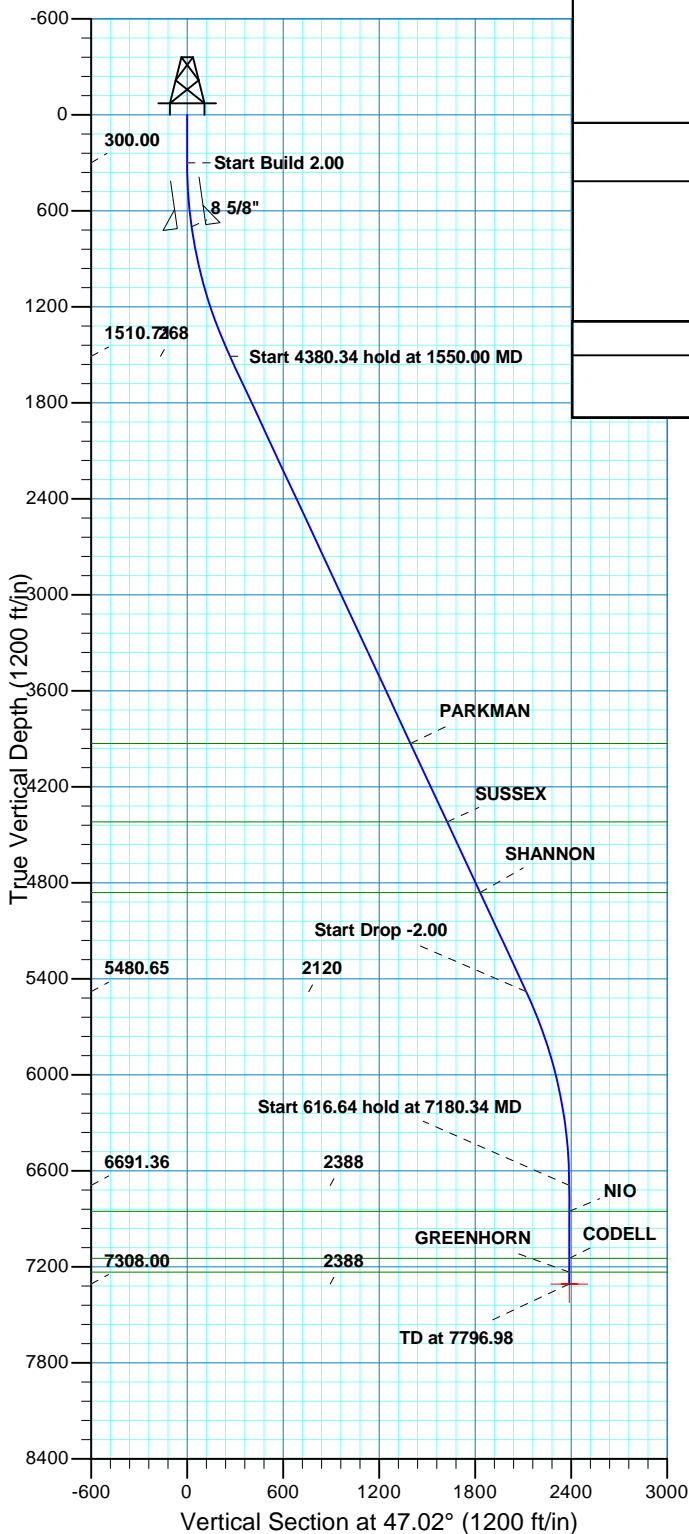


WELL DETAILS: P_KMG CANNON 34-35					
GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1306032.32	3238598.88	40° 10' 13.083 N	104° 38' 46.259 W

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	7308.00	1628.06	1747.04	1307677.12	3240330.16	40° 10' 29.172 N	104° 38' 23.752 W	Circle (Radius: 50.00)
- plan hits target center								

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
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	
1550.00	25.00	47.02	1510.71	182.99	196.36	2.00	47.02	268.41	
5930.35	25.00	47.02	5480.66	1445.07	1550.67	0.00	0.00	2119.62	
7180.35	0.00	0.00	6691.37	1628.06	1747.04	2.00	180.00	2388.03	
7796.98	0.00	0.00	7308.00	1628.06	1747.04	0.00	0.00	2388.03	PBHL_KMG Cannon 34-35(75' FSL 75' FWL)
PROJECT DETAILS: COLORADO NORTHERN ZONE - 83							FORMATION TOP DETAILS		
Geodetic System: US State Plane 1983							TVDPath	MDPath	Formation
Datum: North American Datum 1983							3929.00	4218.29	PARKMAN
Ellipsoid: GRS 1980							4420.00	4760.04	SUSSEX
Zone: Colorado Northern Zone							4862.00	5247.74	SHANNON
Location: SECTION 3 T2N R65W							6854.00	7342.98	NIO
System Datum: Mean Sea Level							7148.00	7636.98	CODELL
							7234.00	7722.98	GREENHORN
CASING DETAILS									
TVD	MD	Name	Size						
700.00	701.31	8 5/8"	8.625						



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CANNON 17-3 PAD

P_KMG CANNON 34-35

P_CANNON 34-35

Plan: PLAN #1 9-13-10 RHS

Standard Planning Report

13 September, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_KMG CANNON 34-35
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)
Site:	WELD_CANNON 17-3 PAD	North Reference:	True
Well:	P_KMG CANNON 34-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_CANNON 34-35		
Design:	PLAN #1 9-13-10 RHS		

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		WELD_CANNON 17-3 PAD, SECTION 3 T2N R65W			
Site Position:		Northing:	1,306,054.71 usft	Latitude:	40° 10' 13.307 N
From:	Lat/Long	Easting:	3,238,576.31 usft	Longitude:	104° 38' 46.547 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.55 °

Well	P_KMG CANNON 34-35, 1565' FNL 1645' FEL					
Well Position	+N/-S	-22.60 ft	Northing:	1,306,032.32 usft	Latitude:	40° 10' 13.083 N
	+E/-W	22.36 ft	Easting:	3,238,598.89 usft	Longitude:	104° 38' 46.259 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,844.00 ft

Wellbore	P_CANNON 34-35				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/17/2010	8.89	66.91	53,111

Design	PLAN #1 9-13-10 RHS			
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	47.02

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	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	
1,550.00	25.00	47.02	1,510.71	182.99	196.36	2.00	2.00	0.00	47.02	
5,930.35	25.00	47.02	5,480.66	1,445.07	1,550.67	0.00	0.00	0.00	0.00	
7,180.35	0.00	0.00	6,691.37	1,628.06	1,747.04	2.00	-2.00	0.00	180.00	
7,796.98	0.00	0.00	7,308.00	1,628.06	1,747.04	0.00	0.00	0.00	0.00	PBHL_KMG Cannon :

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_KMG CANNON 34-35
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)
Site:	WELD_CANNON 17-3 PAD	North Reference:	True
Well:	P_KMG CANNON 34-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_CANNON 34-35		
Design:	PLAN #1 9-13-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
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	
Start Build 2.00										
400.00	2.00	47.02	399.98	1.19	1.28	1.75	2.00	2.00	0.00	
500.00	4.00	47.02	499.84	4.76	5.11	6.98	2.00	2.00	0.00	
600.00	6.00	47.02	599.45	10.70	11.48	15.69	2.00	2.00	0.00	
700.00	8.00	47.02	698.70	19.01	20.40	27.88	2.00	2.00	0.00	
701.31	8.03	47.02	700.00	19.13	20.53	28.06	2.00	2.00	0.00	
8 5/8"										
800.00	10.00	47.02	797.47	29.67	31.84	43.52	2.00	2.00	0.00	
900.00	12.00	47.02	895.62	42.68	45.80	62.60	2.00	2.00	0.00	
1,000.00	14.00	47.02	993.06	58.02	62.25	85.10	2.00	2.00	0.00	
1,100.00	16.00	47.02	1,089.64	75.66	81.19	110.98	2.00	2.00	0.00	
1,200.00	18.00	47.02	1,185.27	95.59	102.58	140.21	2.00	2.00	0.00	
1,300.00	20.00	47.02	1,279.82	117.79	126.39	172.77	2.00	2.00	0.00	
1,400.00	22.00	47.02	1,373.17	142.22	152.61	208.60	2.00	2.00	0.00	
1,500.00	24.00	47.02	1,465.21	168.85	181.19	247.67	2.00	2.00	0.00	
1,550.00	25.00	47.02	1,510.71	182.99	196.36	268.41	2.00	2.00	0.00	
Start 4380.34 hold at 1550.00 MD										
1,600.00	25.00	47.02	1,556.03	197.40	211.82	289.54	0.00	0.00	0.00	
1,700.00	25.00	47.02	1,646.66	226.21	242.74	331.80	0.00	0.00	0.00	
1,800.00	25.00	47.02	1,737.29	255.02	273.66	374.06	0.00	0.00	0.00	
1,900.00	25.00	47.02	1,827.92	283.83	304.57	416.32	0.00	0.00	0.00	
2,000.00	25.00	47.02	1,918.55	312.64	335.49	458.59	0.00	0.00	0.00	
2,100.00	25.00	47.02	2,009.18	341.46	366.41	500.85	0.00	0.00	0.00	
2,200.00	25.00	47.02	2,099.81	370.27	397.33	543.11	0.00	0.00	0.00	
2,300.00	25.00	47.02	2,190.44	399.08	428.25	585.37	0.00	0.00	0.00	
2,400.00	25.00	47.02	2,281.07	427.89	459.16	627.63	0.00	0.00	0.00	
2,500.00	25.00	47.02	2,371.70	456.71	490.08	669.90	0.00	0.00	0.00	
2,600.00	25.00	47.02	2,462.34	485.52	521.00	712.16	0.00	0.00	0.00	
2,700.00	25.00	47.02	2,552.97	514.33	551.92	754.42	0.00	0.00	0.00	
2,800.00	25.00	47.02	2,643.60	543.14	582.84	796.68	0.00	0.00	0.00	
2,900.00	25.00	47.02	2,734.23	571.95	613.75	838.94	0.00	0.00	0.00	
3,000.00	25.00	47.02	2,824.86	600.77	644.67	881.20	0.00	0.00	0.00	
3,100.00	25.00	47.02	2,915.49	629.58	675.59	923.47	0.00	0.00	0.00	
3,200.00	25.00	47.02	3,006.12	658.39	706.51	965.73	0.00	0.00	0.00	
3,300.00	25.00	47.02	3,096.75	687.20	737.42	1,007.99	0.00	0.00	0.00	
3,400.00	25.00	47.02	3,187.38	716.02	768.34	1,050.25	0.00	0.00	0.00	
3,500.00	25.00	47.02	3,278.01	744.83	799.26	1,092.51	0.00	0.00	0.00	
3,600.00	25.00	47.02	3,368.64	773.64	830.18	1,134.78	0.00	0.00	0.00	
3,700.00	25.00	47.02	3,459.27	802.45	861.10	1,177.04	0.00	0.00	0.00	
3,800.00	25.00	47.02	3,549.90	831.27	892.01	1,219.30	0.00	0.00	0.00	
3,900.00	25.00	47.02	3,640.54	860.08	922.93	1,261.56	0.00	0.00	0.00	
4,000.00	25.00	47.02	3,731.17	888.89	953.85	1,303.82	0.00	0.00	0.00	
4,100.00	25.00	47.02	3,821.80	917.70	984.77	1,346.09	0.00	0.00	0.00	
4,200.00	25.00	47.02	3,912.43	946.51	1,015.69	1,388.35	0.00	0.00	0.00	
4,218.29	25.00	47.02	3,929.00	951.78	1,021.34	1,396.07	0.00	0.00	0.00	
PARKMAN										
4,300.00	25.00	47.02	4,003.06	975.33	1,046.60	1,430.61	0.00	0.00	0.00	
4,400.00	25.00	47.02	4,093.69	1,004.14	1,077.52	1,472.87	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_KMG CANNON 34-35
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)
Site:	WELD_CANNON 17-3 PAD	North Reference:	True
Well:	P_KMG CANNON 34-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_CANNON 34-35		
Design:	PLAN #1 9-13-10 RHS		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,500.00	25.00	47.02	4,184.32	1,032.95	1,108.44	1,515.13	0.00	0.00	0.00	
4,600.00	25.00	47.02	4,274.95	1,061.76	1,139.36	1,557.39	0.00	0.00	0.00	
4,700.00	25.00	47.02	4,365.58	1,090.58	1,170.28	1,599.66	0.00	0.00	0.00	
4,760.04	25.00	47.02	4,420.00	1,107.88	1,188.84	1,625.03	0.00	0.00	0.00	
SUSSEX										
4,800.00	25.00	47.02	4,456.21	1,119.39	1,201.19	1,641.92	0.00	0.00	0.00	
4,900.00	25.00	47.02	4,546.84	1,148.20	1,232.11	1,684.18	0.00	0.00	0.00	
5,000.00	25.00	47.02	4,637.47	1,177.01	1,263.03	1,726.44	0.00	0.00	0.00	
5,100.00	25.00	47.02	4,728.10	1,205.82	1,293.95	1,768.70	0.00	0.00	0.00	
5,200.00	25.00	47.02	4,818.74	1,234.64	1,324.86	1,810.97	0.00	0.00	0.00	
5,247.74	25.00	47.02	4,862.00	1,248.39	1,339.62	1,831.14	0.00	0.00	0.00	
SHANNON										
5,300.00	25.00	47.02	4,909.37	1,263.45	1,355.78	1,853.23	0.00	0.00	0.00	
5,400.00	25.00	47.02	5,000.00	1,292.26	1,386.70	1,895.49	0.00	0.00	0.00	
5,500.00	25.00	47.02	5,090.63	1,321.07	1,417.62	1,937.75	0.00	0.00	0.00	
5,600.00	25.00	47.02	5,181.26	1,349.89	1,448.54	1,980.01	0.00	0.00	0.00	
5,700.00	25.00	47.02	5,271.89	1,378.70	1,479.45	2,022.27	0.00	0.00	0.00	
5,800.00	25.00	47.02	5,362.52	1,407.51	1,510.37	2,064.54	0.00	0.00	0.00	
5,900.00	25.00	47.02	5,453.15	1,436.32	1,541.29	2,106.80	0.00	0.00	0.00	
5,930.34	25.00	47.02	5,480.65	1,445.07	1,550.67	2,119.62	0.00	0.00	0.00	
Start Drop -2.00										
5,930.35	25.00	47.02	5,480.66	1,445.07	1,550.67	2,119.62	0.00	0.00	0.00	
6,000.00	23.61	47.02	5,544.13	1,464.61	1,571.64	2,148.29	2.00	-2.00	0.00	
6,100.00	21.61	47.02	5,636.45	1,490.82	1,599.77	2,186.73	2.00	-2.00	0.00	
6,200.00	19.61	47.02	5,730.04	1,514.81	1,625.51	2,221.92	2.00	-2.00	0.00	
6,300.00	17.61	47.02	5,824.81	1,536.56	1,648.85	2,253.83	2.00	-2.00	0.00	
6,400.00	15.61	47.02	5,920.63	1,556.05	1,669.76	2,282.41	2.00	-2.00	0.00	
6,500.00	13.61	47.02	6,017.40	1,573.24	1,688.21	2,307.62	2.00	-2.00	0.00	
6,600.00	11.61	47.02	6,114.98	1,588.12	1,704.18	2,329.45	2.00	-2.00	0.00	
6,700.00	9.61	47.02	6,213.27	1,600.67	1,717.64	2,347.86	2.00	-2.00	0.00	
6,800.00	7.61	47.02	6,312.14	1,610.87	1,728.59	2,362.82	2.00	-2.00	0.00	
6,900.00	5.61	47.02	6,411.47	1,618.71	1,737.01	2,374.33	2.00	-2.00	0.00	
7,000.00	3.61	47.02	6,511.14	1,624.19	1,742.88	2,382.36	2.00	-2.00	0.00	
7,100.00	1.61	47.02	6,611.03	1,627.29	1,746.21	2,386.91	2.00	-2.00	0.00	
7,180.34	0.00	47.02	6,691.36	1,628.06	1,747.04	2,388.03	2.00	-2.00	0.00	
Start 616.64 hold at 7180.34 MD										
7,180.35	0.00	0.00	6,691.37	1,628.06	1,747.04	2,388.03	2.00	-2.00	0.00	
7,200.00	0.00	0.00	6,711.02	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
7,300.00	0.00	0.00	6,811.02	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
7,342.98	0.00	0.00	6,854.00	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
NIO										
7,400.00	0.00	0.00	6,911.02	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,011.02	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,111.02	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
7,636.98	0.00	0.00	7,148.00	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
CODELL										
7,700.00	0.00	0.00	7,211.02	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
7,722.98	0.00	0.00	7,234.00	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
GREENHORN										
7,796.98	0.00	0.00	7,308.00	1,628.06	1,747.04	2,388.03	0.00	0.00	0.00	
TD at 7796.98 - PBHL_KMG Cannon 34-35(75' FSL 75' FWL)										

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_KMG CANNON 34-35
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)
Site:	WELD_CANNON 17-3 PAD	North Reference:	True
Well:	P_KMG CANNON 34-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_CANNON 34-35		
Design:	PLAN #1 9-13-10 RHS		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target - Shape PBHL_KMG Cannon 34- - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,308.00	1,628.06	1,747.04	1,307,677.12	3,240,330.16	40° 10' 29.172 N	104° 38' 23.752 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
701.31	700.00	8 5/8"	8.625	11.000	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,218.29	3,929.00	PARKMAN				
4,760.04	4,420.00	SUSSEX				
5,247.74	4,862.00	SHANNON				
7,342.98	6,854.00	NIO				
7,636.98	7,148.00	CODELL				
7,722.98	7,234.00	GREENHORN				

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
300.00	300.00	0.00	0.00	Start Build 2.00
1,550.00	1,510.71	182.99	196.36	Start 4380.34 hold at 1550.00 MD
5,930.34	5,480.65	1,445.07	1,550.67	Start Drop -2.00
7,180.34	6,691.36	1,628.06	1,747.04	Start 616.64 hold at 7180.34 MD
7,796.98	7,308.00	1,628.06	1,747.04	TD at 7796.98