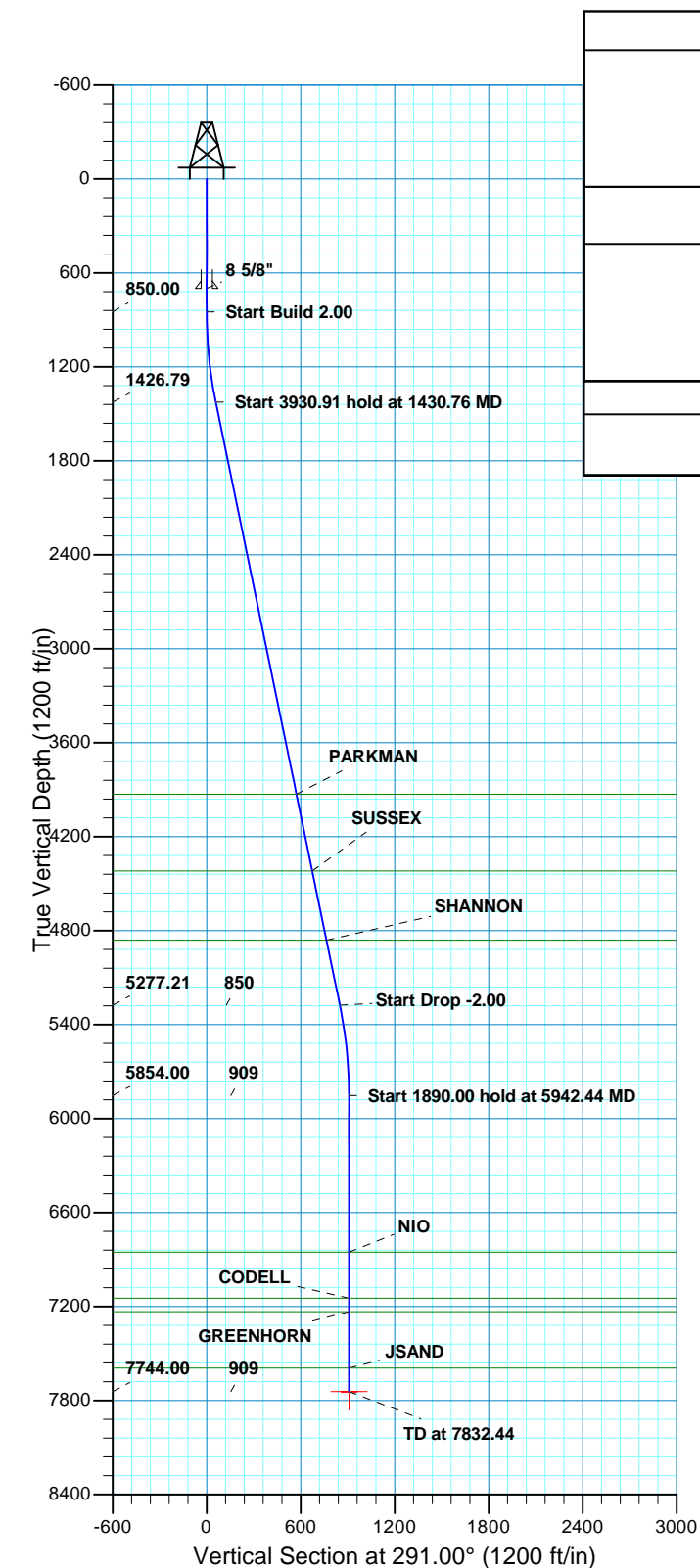


WELL DETAILS: P_Cannon 21-3					
GL 4844' & 15' RKB @ 4859.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1306077.43	3238553.73	40° 10' 13.533 N	104° 38' 46.835 W

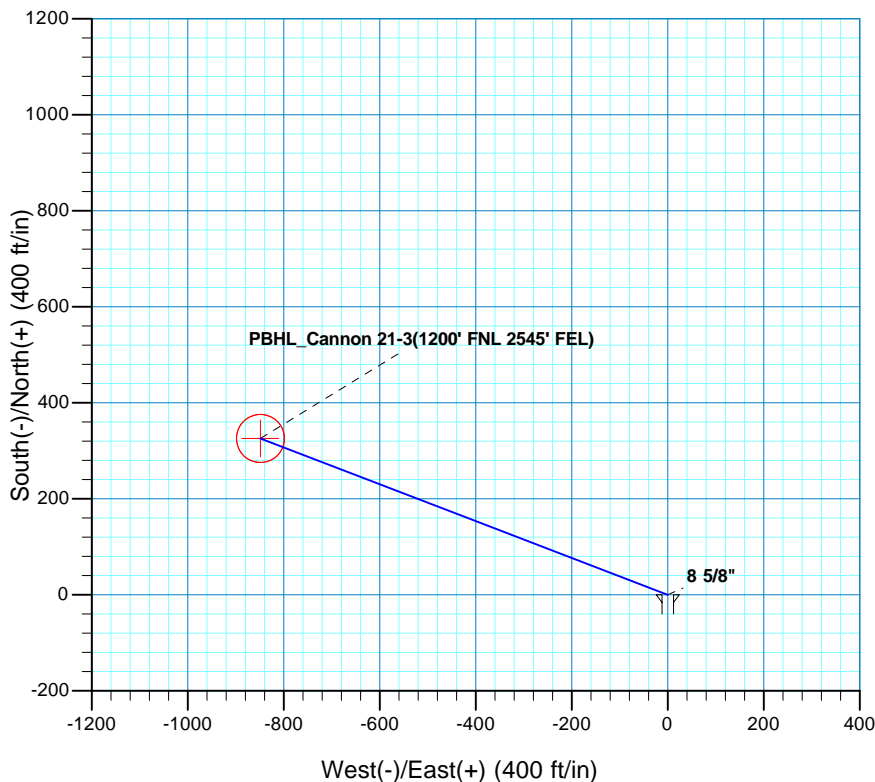
DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	7744.00	325.70	-848.41	1306394.94	3237702.23	40° 10' 16.752 N	104° 38' 57.764 W
- plan hits target center							
Shape							
Circle (Radius: 50.00)							



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	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	
1430.76	11.62	291.00	1426.79	21.03	-54.77	2.00	291.00	58.67	
5361.67	11.62	291.00	5277.21	304.67	-793.64	0.00	0.00	850.11	
5942.44	0.00	0.00	5854.00	325.70	-848.41	2.00	180.00	908.78	
7832.44	0.00	0.00	7744.00	325.70	-848.41	0.00	0.00	908.78	PBHL_Cannon 21-3(1200' FNL 2545' FEL)

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	3985.28	PARKMAN
Ellipsoid: GRS 1980					4420.00	4486.55	SUSSEX
Zone: Colorado Northern Zone					4862.00	4937.79	SHANNON
Location: SECTION 3 T2N R65W					6854.00	6942.44	NIO
System Datum: Mean Sea Level					7148.00	7236.44	CODELL
					7234.00	7322.44	GREENHORN
					7594.00	7682.44	JSAND

CASING DETAILS			
TVD	MD	Name	Size
700.00	700.00	8 5/8"	8.625



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CANNON 17-3 PAD

P_Cannon 21-3

P_Cannon 21-3

Plan: PLAN #2 9-13-10 RHS

Standard Planning Report

13 September, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Cannon 21-3
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_Cannon 21-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Cannon 21-3		
Design:	PLAN #2 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_Cannon 21-3, 1520' FNL 1691' FEL					
Well Position	+N/-S	22.94 ft	Northing:	1,306,077.43 usft	Latitude:	40° 10' 13.533 N
	+E/-W	-22.36 ft	Easting:	3,238,553.74 usft	Longitude:	104° 38' 46.835 W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,844.00 ft

Wellbore	P_Cannon 21-3				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/17/2010	8.89	66.91	53,111

Design	PLAN #2 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	291.00

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	
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,430.76	11.62	291.00	1,426.79	21.03	-54.77	2.00	2.00	0.00	291.00	
5,361.67	11.62	291.00	5,277.21	304.67	-793.64	0.00	0.00	0.00	0.00	
5,942.44	0.00	0.00	5,854.00	325.70	-848.41	2.00	-2.00	0.00	180.00	
7,832.44	0.00	0.00	7,744.00	325.70	-848.41	0.00	0.00	0.00	0.00	PBHL_Cannon 21-3(1

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Cannon 21-3
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_Cannon 21-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Cannon 21-3		
Design:	PLAN #2 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
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
8 5/8"									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
900.00	1.00	291.00	900.00	0.16	-0.41	0.44	2.00	2.00	0.00
1,000.00	3.00	291.00	999.93	1.41	-3.67	3.93	2.00	2.00	0.00
1,100.00	5.00	291.00	1,099.68	3.91	-10.18	10.90	2.00	2.00	0.00
1,200.00	7.00	291.00	1,199.13	7.65	-19.94	21.35	2.00	2.00	0.00
1,300.00	9.00	291.00	1,298.15	12.64	-32.93	35.27	2.00	2.00	0.00
1,400.00	11.00	291.00	1,396.63	18.86	-49.14	52.63	2.00	2.00	0.00
1,430.76	11.62	291.00	1,426.79	21.03	-54.77	58.67	2.00	2.00	0.00
Start 3930.91 hold at 1430.76 MD									
1,500.00	11.62	291.00	1,494.61	26.02	-67.78	72.61	0.00	0.00	0.00
1,600.00	11.62	291.00	1,592.56	33.24	-86.58	92.74	0.00	0.00	0.00
1,700.00	11.62	291.00	1,690.52	40.45	-105.38	112.87	0.00	0.00	0.00
1,800.00	11.62	291.00	1,788.47	47.67	-124.17	133.01	0.00	0.00	0.00
1,900.00	11.62	291.00	1,886.42	54.88	-142.97	153.14	0.00	0.00	0.00
2,000.00	11.62	291.00	1,984.37	62.10	-161.77	173.28	0.00	0.00	0.00
2,100.00	11.62	291.00	2,082.33	69.32	-180.56	193.41	0.00	0.00	0.00
2,200.00	11.62	291.00	2,180.28	76.53	-199.36	213.54	0.00	0.00	0.00
2,300.00	11.62	291.00	2,278.23	83.75	-218.16	233.68	0.00	0.00	0.00
2,400.00	11.62	291.00	2,376.18	90.96	-236.95	253.81	0.00	0.00	0.00
2,500.00	11.62	291.00	2,474.13	98.18	-255.75	273.95	0.00	0.00	0.00
2,600.00	11.62	291.00	2,572.09	105.39	-274.54	294.08	0.00	0.00	0.00
2,700.00	11.62	291.00	2,670.04	112.61	-293.34	314.21	0.00	0.00	0.00
2,800.00	11.62	291.00	2,767.99	119.83	-312.14	334.35	0.00	0.00	0.00
2,900.00	11.62	291.00	2,865.94	127.04	-330.93	354.48	0.00	0.00	0.00
3,000.00	11.62	291.00	2,963.89	134.26	-349.73	374.62	0.00	0.00	0.00
3,100.00	11.62	291.00	3,061.85	141.47	-368.53	394.75	0.00	0.00	0.00
3,200.00	11.62	291.00	3,159.80	148.69	-387.32	414.88	0.00	0.00	0.00
3,300.00	11.62	291.00	3,257.75	155.90	-406.12	435.02	0.00	0.00	0.00
3,400.00	11.62	291.00	3,355.70	163.12	-424.92	455.15	0.00	0.00	0.00
3,500.00	11.62	291.00	3,453.66	170.34	-443.71	475.28	0.00	0.00	0.00
3,600.00	11.62	291.00	3,551.61	177.55	-462.51	495.42	0.00	0.00	0.00
3,700.00	11.62	291.00	3,649.56	184.77	-481.31	515.55	0.00	0.00	0.00
3,800.00	11.62	291.00	3,747.51	191.98	-500.10	535.69	0.00	0.00	0.00
3,900.00	11.62	291.00	3,845.46	199.20	-518.90	555.82	0.00	0.00	0.00
3,985.28	11.62	291.00	3,929.00	205.35	-534.93	572.99	0.00	0.00	0.00
PARKMAN									
4,000.00	11.62	291.00	3,943.42	206.42	-537.70	575.95	0.00	0.00	0.00
4,100.00	11.62	291.00	4,041.37	213.63	-556.49	596.09	0.00	0.00	0.00
4,200.00	11.62	291.00	4,139.32	220.85	-575.29	616.22	0.00	0.00	0.00
4,300.00	11.62	291.00	4,237.27	228.06	-594.08	636.36	0.00	0.00	0.00
4,400.00	11.62	291.00	4,335.23	235.28	-612.88	656.49	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Cannon 21-3
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_Cannon 21-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Cannon 21-3		
Design:	PLAN #2 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)
4,486.55	11.62	291.00	4,420.00	241.52	-629.15	673.92	0.00	0.00	0.00
SUSSEX									
4,500.00	11.62	291.00	4,433.18	242.49	-631.68	676.62	0.00	0.00	0.00
4,600.00	11.62	291.00	4,531.13	249.71	-650.47	696.76	0.00	0.00	0.00
4,700.00	11.62	291.00	4,629.08	256.93	-669.27	716.89	0.00	0.00	0.00
4,800.00	11.62	291.00	4,727.03	264.14	-688.07	737.03	0.00	0.00	0.00
4,900.00	11.62	291.00	4,824.99	271.36	-706.86	757.16	0.00	0.00	0.00
4,937.79	11.62	291.00	4,862.00	274.08	-713.97	764.77	0.00	0.00	0.00
SHANNON									
5,000.00	11.62	291.00	4,922.94	278.57	-725.66	777.29	0.00	0.00	0.00
5,100.00	11.62	291.00	5,020.89	285.79	-744.46	797.43	0.00	0.00	0.00
5,200.00	11.62	291.00	5,118.84	293.00	-763.25	817.56	0.00	0.00	0.00
5,300.00	11.62	291.00	5,216.79	300.22	-782.05	837.70	0.00	0.00	0.00
5,361.67	11.62	291.00	5,277.21	304.67	-793.64	850.11	0.00	0.00	0.00
Start Drop -2.00									
5,400.00	10.85	291.00	5,314.80	307.35	-800.61	857.58	2.00	-2.00	0.00
5,500.00	8.85	291.00	5,413.32	313.48	-816.58	874.68	2.00	-2.00	0.00
5,600.00	6.85	291.00	5,512.38	318.37	-829.33	888.34	2.00	-2.00	0.00
5,700.00	4.85	291.00	5,611.85	322.02	-838.84	898.53	2.00	-2.00	0.00
5,800.00	2.85	291.00	5,711.62	324.43	-845.11	905.24	2.00	-2.00	0.00
5,900.00	0.85	291.00	5,811.56	325.58	-848.12	908.46	2.00	-2.00	0.00
5,942.44	0.00	0.00	5,854.00	325.70	-848.41	908.78	2.00	-2.00	162.59
Start 1890.00 hold at 5942.44 MD									
6,000.00	0.00	0.00	5,911.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,100.00	0.00	0.00	6,011.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,200.00	0.00	0.00	6,111.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,300.00	0.00	0.00	6,211.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,400.00	0.00	0.00	6,311.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,500.00	0.00	0.00	6,411.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,600.00	0.00	0.00	6,511.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,700.00	0.00	0.00	6,611.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,800.00	0.00	0.00	6,711.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,900.00	0.00	0.00	6,811.56	325.70	-848.41	908.78	0.00	0.00	0.00
6,942.44	0.00	0.00	6,854.00	325.70	-848.41	908.78	0.00	0.00	0.00
NIO									
7,000.00	0.00	0.00	6,911.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,100.00	0.00	0.00	7,011.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,200.00	0.00	0.00	7,111.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,236.44	0.00	0.00	7,148.00	325.70	-848.41	908.78	0.00	0.00	0.00
CODELL									
7,300.00	0.00	0.00	7,211.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,322.44	0.00	0.00	7,234.00	325.70	-848.41	908.78	0.00	0.00	0.00
GREENHORN									
7,400.00	0.00	0.00	7,311.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,500.00	0.00	0.00	7,411.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,600.00	0.00	0.00	7,511.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,682.44	0.00	0.00	7,594.00	325.70	-848.41	908.78	0.00	0.00	0.00
JSAND									
7,700.00	0.00	0.00	7,611.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,800.00	0.00	0.00	7,711.56	325.70	-848.41	908.78	0.00	0.00	0.00
7,832.44	0.00	0.00	7,744.00	325.70	-848.41	908.78	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Cannon 21-3
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_Cannon 21-3	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Cannon 21-3		
Design:	PLAN #2 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)
PBHL_Cannon 21-3(1200' FNL 2545' FEL)									

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_Cannon 21-3(1200' FNL 2545' FEL)	0.00	0.00	7,744.00	325.70	-848.41	1,306,394.94	3,237,702.23	40° 10' 16.752 N	104° 38' 57.764 W
- plan hits target center									
- Circle (radius 50.00)									

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

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,985.28	3,929.00	PARKMAN				
4,486.55	4,420.00	SUSSEX				
4,937.79	4,862.00	SHANNON				
6,942.44	6,854.00	NIO				
7,236.44	7,148.00	CODELL				
7,322.44	7,234.00	GREENHORN				
7,682.44	7,594.00	JSAND				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
850.00	850.00	0.00	0.00	Start Build 2.00	
1,430.76	1,426.79	21.03	-54.77	Start 3930.91 hold at 1430.76 MD	
5,361.67	5,277.21	304.67	-793.64	Start Drop -2.00	
5,942.44	5,854.00	325.70	-848.41	Start 1890.00 hold at 5942.44 MD	
7,832.44	7,744.00	325.70	-848.41	TD at 7832.44	