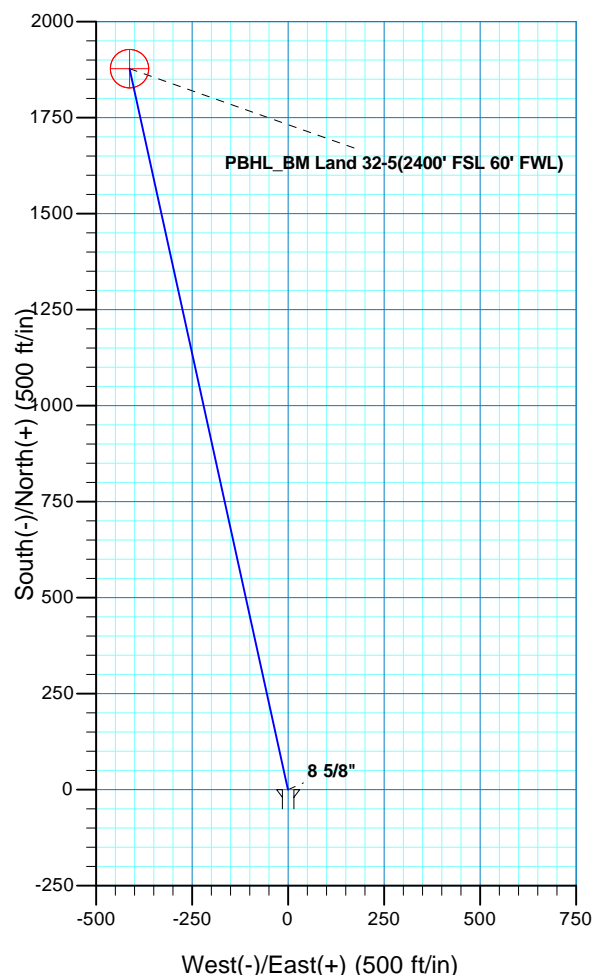
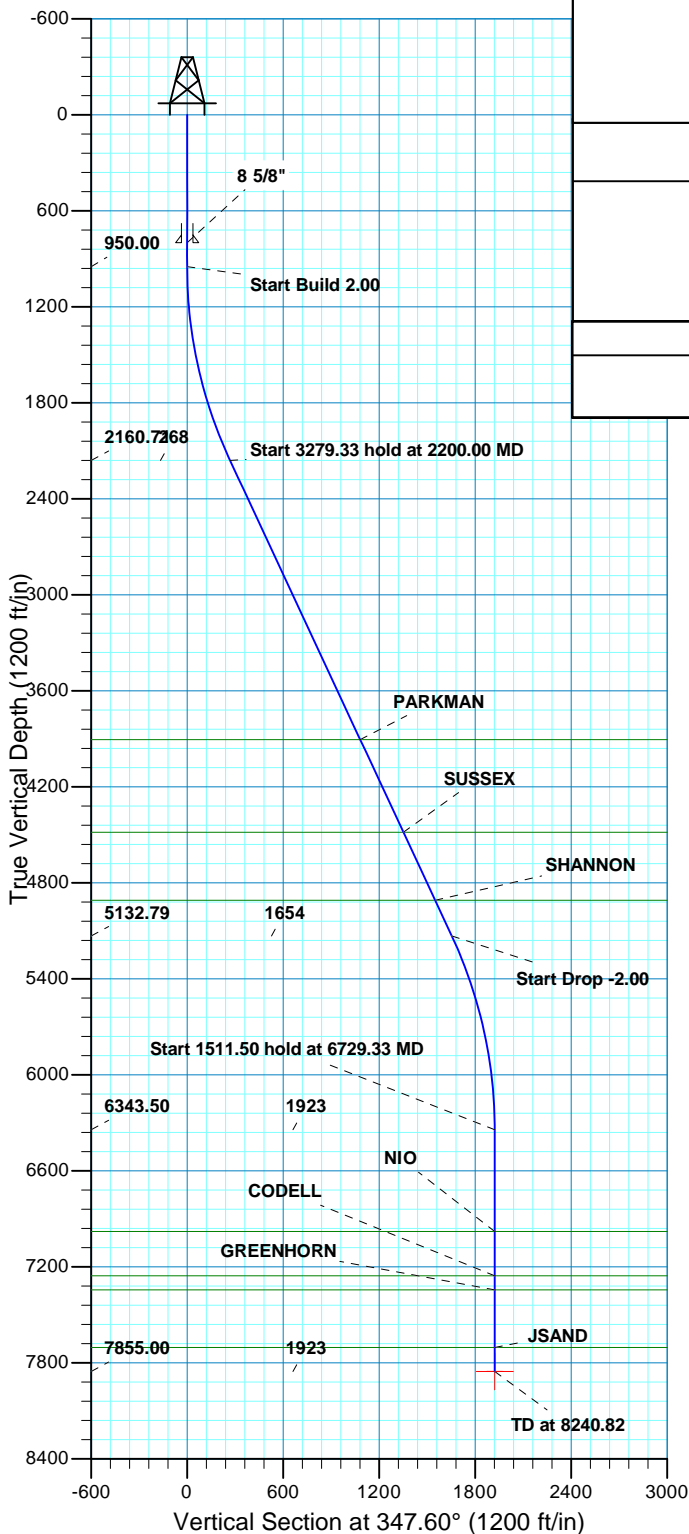


WELL DETAILS: P_BM Land 32-5					
GL 4909' & RKB 15' @ 4924.00ft ASSUMED					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1302855.46	3224905.68	40° 9' 42.955 N	104° 41' 43.022 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	7855.00	1877.89	-412.77	1304729.53	3224475.88	40° 10' 1.513 N	104° 41' 48.340 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		
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00		
2200.00	25.00	347.60	2160.71	262.15	-57.62	2.00	347.60	268.41		
5479.33	25.00	347.60	5132.79	1615.74	-355.15	0.00	0.00	1654.31		
6729.33	0.00	0.00	6343.50	1877.89	-412.77	2.00	180.00	1922.72		
8240.82	0.00	0.00	7855.00	1877.89	-412.77	0.00	0.00	1922.72	PBHL_BM Land 32-5(2400' FSL 60' FWL)	
PROJECT DETAILS: COLORADO NORTHERN ZONE - 83 Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: Colorado Northern Zone Location: SEC 5 T2N R65W System Datum: Mean Sea Level						FORMATION TOP DETAILS				
						TVDPath	MDPath	Formation		
						3905.00	4124.61	PARKMAN		
						4485.00	4764.57	SUSSEX		
						4910.00	5233.50	SHANNON		
						6980.00	7365.82	NIO		
						7257.00	7642.82	CODELL		
						7344.00	7729.82	GREENHORN		
						7705.00	8090.82	JSAND		
CASING DETAILS										
TVD			MD		Name		Size			
800.00			800.00		8 5/8"		8.625			



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_BM Land 13-5 Pad

P_BM Land 32-5

P_BM Land 32-5

Plan: PLAN #1 8-16-10 RHS

Standard Planning Report

16 August, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_BM Land 32-5
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Site:	WELD_BM Land 13-5 Pad	North Reference:	True
Well:	P_BM Land 32-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BM Land 32-5		
Design:	PLAN #1 8-16-10 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_BM Land 13-5 Pad, SEC 5 T2N R65W			
Site Position:		Northing:	1,302,833.83 usft	Latitude: 40° 9' 42.739 N
From:	Lat/Long	Easting:	3,224,929.08 usft	Longitude: 104° 41' 42.724 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.52 °

Well	P_BM Land 32-5, 521' FSL 498' FWL			
Well Position	+N/-S	21.84 ft	Northing:	1,302,855.46 usft
	+E/-W	-23.20 ft	Easting:	3,224,905.68 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:		Ground Level: 4,909.00 ft

Wellbore	P_BM Land 32-5				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	08/16/2010	8.92	66.90	53,101

Design	PLAN #1 8-16-10 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	347.60

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	
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	25.00	347.60	2,160.71	262.15	-57.62	2.00	2.00	0.00	347.60	
5,479.33	25.00	347.60	5,132.79	1,615.74	-355.15	0.00	0.00	0.00	0.00	
6,729.33	0.00	0.00	6,343.50	1,877.89	-412.77	2.00	-2.00	0.00	180.00	
8,240.82	0.00	0.00	7,855.00	1,877.89	-412.77	0.00	0.00	0.00	0.00	PBHL_BM Land 32-5i

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_BM Land 32-5
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Site:	WELD_BM Land 13-5 Pad	North Reference:	True
Well:	P_BM Land 32-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BM Land 32-5		
Design:	PLAN #1 8-16-10 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
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
8 5/8"									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	1.00	347.60	1,000.00	0.43	-0.09	0.44	2.00	2.00	0.00
1,100.00	3.00	347.60	1,099.93	3.83	-0.84	3.93	2.00	2.00	0.00
1,200.00	5.00	347.60	1,199.68	10.65	-2.34	10.90	2.00	2.00	0.00
1,300.00	7.00	347.60	1,299.13	20.86	-4.58	21.35	2.00	2.00	0.00
1,400.00	9.00	347.60	1,398.15	34.45	-7.57	35.27	2.00	2.00	0.00
1,500.00	11.00	347.60	1,496.63	51.41	-11.30	52.63	2.00	2.00	0.00
1,600.00	13.00	347.60	1,594.44	71.71	-15.76	73.42	2.00	2.00	0.00
1,700.00	15.00	347.60	1,691.46	95.34	-20.96	97.62	2.00	2.00	0.00
1,800.00	17.00	347.60	1,787.58	122.26	-26.87	125.18	2.00	2.00	0.00
1,900.00	19.00	347.60	1,882.68	152.44	-33.51	156.08	2.00	2.00	0.00
2,000.00	21.00	347.60	1,976.65	185.84	-40.85	190.28	2.00	2.00	0.00
2,100.00	23.00	347.60	2,069.36	222.43	-48.89	227.74	2.00	2.00	0.00
2,200.00	25.00	347.60	2,160.71	262.15	-57.62	268.41	2.00	2.00	0.00
Start 3279.33 hold at 2200.00 MD									
2,300.00	25.00	347.60	2,251.34	303.43	-66.70	310.67	0.00	0.00	0.00
2,400.00	25.00	347.60	2,341.97	344.70	-75.77	352.93	0.00	0.00	0.00
2,500.00	25.00	347.60	2,432.60	385.98	-84.84	395.19	0.00	0.00	0.00
2,600.00	25.00	347.60	2,523.24	427.26	-93.91	437.46	0.00	0.00	0.00
2,700.00	25.00	347.60	2,613.87	468.53	-102.99	479.72	0.00	0.00	0.00
2,800.00	25.00	347.60	2,704.50	509.81	-112.06	521.98	0.00	0.00	0.00
2,900.00	25.00	347.60	2,795.13	551.09	-121.13	564.24	0.00	0.00	0.00
3,000.00	25.00	347.60	2,885.76	592.36	-130.21	606.50	0.00	0.00	0.00
3,100.00	25.00	347.60	2,976.39	633.64	-139.28	648.76	0.00	0.00	0.00
3,200.00	25.00	347.60	3,067.02	674.91	-148.35	691.03	0.00	0.00	0.00
3,300.00	25.00	347.60	3,157.65	716.19	-157.42	733.29	0.00	0.00	0.00
3,400.00	25.00	347.60	3,248.28	757.47	-166.50	775.55	0.00	0.00	0.00
3,500.00	25.00	347.60	3,338.91	798.74	-175.57	817.81	0.00	0.00	0.00
3,600.00	25.00	347.60	3,429.54	840.02	-184.64	860.07	0.00	0.00	0.00
3,700.00	25.00	347.60	3,520.17	881.30	-193.72	902.34	0.00	0.00	0.00
3,800.00	25.00	347.60	3,610.80	922.57	-202.79	944.60	0.00	0.00	0.00
3,900.00	25.00	347.60	3,701.44	963.85	-211.86	986.86	0.00	0.00	0.00
4,000.00	25.00	347.60	3,792.07	1,005.13	-220.93	1,029.12	0.00	0.00	0.00
4,100.00	25.00	347.60	3,882.70	1,046.40	-230.01	1,071.38	0.00	0.00	0.00
4,124.61	25.00	347.60	3,905.00	1,056.56	-232.24	1,081.78	0.00	0.00	0.00
PARKMAN									
4,200.00	25.00	347.60	3,973.33	1,087.68	-239.08	1,113.64	0.00	0.00	0.00
4,300.00	25.00	347.60	4,063.96	1,128.96	-248.15	1,155.91	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_BM Land 32-5
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Site:	WELD_BM Land 13-5 Pad	North Reference:	True
Well:	P_BM Land 32-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BM Land 32-5		
Design:	PLAN #1 8-16-10 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)
4,400.00	25.00	347.60	4,154.59	1,170.23	-257.23	1,198.17	0.00	0.00	0.00
4,500.00	25.00	347.60	4,245.22	1,211.51	-266.30	1,240.43	0.00	0.00	0.00
4,600.00	25.00	347.60	4,335.85	1,252.78	-275.37	1,282.69	0.00	0.00	0.00
4,700.00	25.00	347.60	4,426.48	1,294.06	-284.44	1,324.95	0.00	0.00	0.00
4,764.57	25.00	347.60	4,485.00	1,320.71	-290.30	1,352.24	0.00	0.00	0.00
SUSSEX									
4,800.00	25.00	347.60	4,517.11	1,335.34	-293.52	1,367.22	0.00	0.00	0.00
4,900.00	25.00	347.60	4,607.74	1,376.61	-302.59	1,409.48	0.00	0.00	0.00
5,000.00	25.00	347.60	4,698.37	1,417.89	-311.66	1,451.74	0.00	0.00	0.00
5,100.00	25.00	347.60	4,789.00	1,459.17	-320.74	1,494.00	0.00	0.00	0.00
5,200.00	25.00	347.60	4,879.64	1,500.44	-329.81	1,536.26	0.00	0.00	0.00
5,233.50	25.00	347.60	4,910.00	1,514.27	-332.85	1,550.42	0.00	0.00	0.00
SHANNON									
5,300.00	25.00	347.60	4,970.27	1,541.72	-338.88	1,578.53	0.00	0.00	0.00
5,400.00	25.00	347.60	5,060.90	1,583.00	-347.95	1,620.79	0.00	0.00	0.00
5,479.33	25.00	347.60	5,132.79	1,615.74	-355.15	1,654.31	0.00	0.00	0.00
Start Drop -2.00									
5,500.00	24.59	347.60	5,151.56	1,624.21	-357.01	1,662.98	2.00	-2.00	0.00
5,600.00	22.59	347.60	5,243.20	1,663.29	-365.60	1,702.99	2.00	-2.00	0.00
5,700.00	20.59	347.60	5,336.18	1,699.22	-373.50	1,739.78	2.00	-2.00	0.00
5,800.00	18.59	347.60	5,430.39	1,731.96	-380.70	1,773.30	2.00	-2.00	0.00
5,900.00	16.59	347.60	5,525.71	1,761.46	-387.18	1,803.52	2.00	-2.00	0.00
6,000.00	14.59	347.60	5,622.03	1,787.71	-392.95	1,830.38	2.00	-2.00	0.00
6,100.00	12.59	347.60	5,719.23	1,810.65	-397.99	1,853.87	2.00	-2.00	0.00
6,200.00	10.59	347.60	5,817.18	1,830.26	-402.31	1,873.96	2.00	-2.00	0.00
6,300.00	8.59	347.60	5,915.78	1,846.53	-405.88	1,890.61	2.00	-2.00	0.00
6,400.00	6.59	347.60	6,014.90	1,859.42	-408.71	1,903.81	2.00	-2.00	0.00
6,500.00	4.59	347.60	6,114.42	1,868.93	-410.80	1,913.55	2.00	-2.00	0.00
6,600.00	2.59	347.60	6,214.22	1,875.04	-412.15	1,919.80	2.00	-2.00	0.00
6,700.00	0.59	347.60	6,314.18	1,877.74	-412.74	1,922.57	2.00	-2.00	0.00
6,729.33	0.00	0.00	6,343.50	1,877.89	-412.77	1,922.72	2.00	-2.00	0.00
Start 1511.50 hold at 6729.33 MD									
6,800.00	0.00	0.00	6,414.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
6,900.00	0.00	0.00	6,514.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,000.00	0.00	0.00	6,614.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,100.00	0.00	0.00	6,714.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,200.00	0.00	0.00	6,814.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,300.00	0.00	0.00	6,914.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,365.82	0.00	0.00	6,980.00	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
NIO									
7,400.00	0.00	0.00	7,014.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,500.00	0.00	0.00	7,114.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,600.00	0.00	0.00	7,214.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,642.82	0.00	0.00	7,257.00	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
CODELL									
7,700.00	0.00	0.00	7,314.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
7,729.82	0.00	0.00	7,344.00	1,877.89	-412.77	1,922.72	0.00	0.00	0.00
GREENHORN									
7,800.00	0.00	0.00	7,414.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_BM Land 32-5
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Site:	WELD_BM Land 13-5 Pad	North Reference:	True
Well:	P_BM Land 32-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BM Land 32-5		
Design:	PLAN #1 8-16-10 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)	
7,900.00	0.00	0.00	7,514.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,614.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00	
8,090.82	0.00	0.00	7,705.00	1,877.89	-412.77	1,922.72	0.00	0.00	0.00	
JSAND										
8,100.00	0.00	0.00	7,714.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,814.18	1,877.89	-412.77	1,922.72	0.00	0.00	0.00	
8,240.82	0.00	0.00	7,855.00	1,877.89	-412.77	1,922.72	0.00	0.00	0.00	
TD at 8240.82 - PBHL_BM Land 32-5(2400' FSL 60' FWL)										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL_BM Land 32-5(24 - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,855.00	1,877.89	-412.77	1,304,729.53	3,224,475.88	40° 10' 1.513 N	104° 41' 48.340 W	

Casing Points									
Measured Depth (ft)	Vertical Depth (ft)	Name			Casing Diameter (in)	Hole Diameter (in)			
800.00	800.00	8 5/8"			8.625	11.000			

Formations									
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)				
4,124.61	3,905.00	PARKMAN							
4,764.57	4,485.00	SUSSEX							
5,233.50	4,910.00	SHANNON							
7,365.82	6,980.00	NIO							
7,642.82	7,257.00	CODELL							
7,729.82	7,344.00	GREENHORN							
8,090.82	7,705.00	JSAND							

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_BM Land 32-5
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4909' & RKB 15' @ 4924.00ft (ASSUMED)
Site:	WELD_BM Land 13-5 Pad	North Reference:	True
Well:	P_BM Land 32-5	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BM Land 32-5		
Design:	PLAN #1 8-16-10 RHS		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
950.00	950.00	0.00	0.00	Start Build 2.00
2,200.00	2,160.71	262.15	-57.62	Start 3279.33 hold at 2200.00 MD
5,479.33	5,132.79	1,615.74	-355.15	Start Drop -2.00
6,729.33	6,343.50	1,877.89	-412.77	Start 1511.50 hold at 6729.33 MD
8,240.82	7,855.00	1,877.89	-412.77	TD at 8240.82