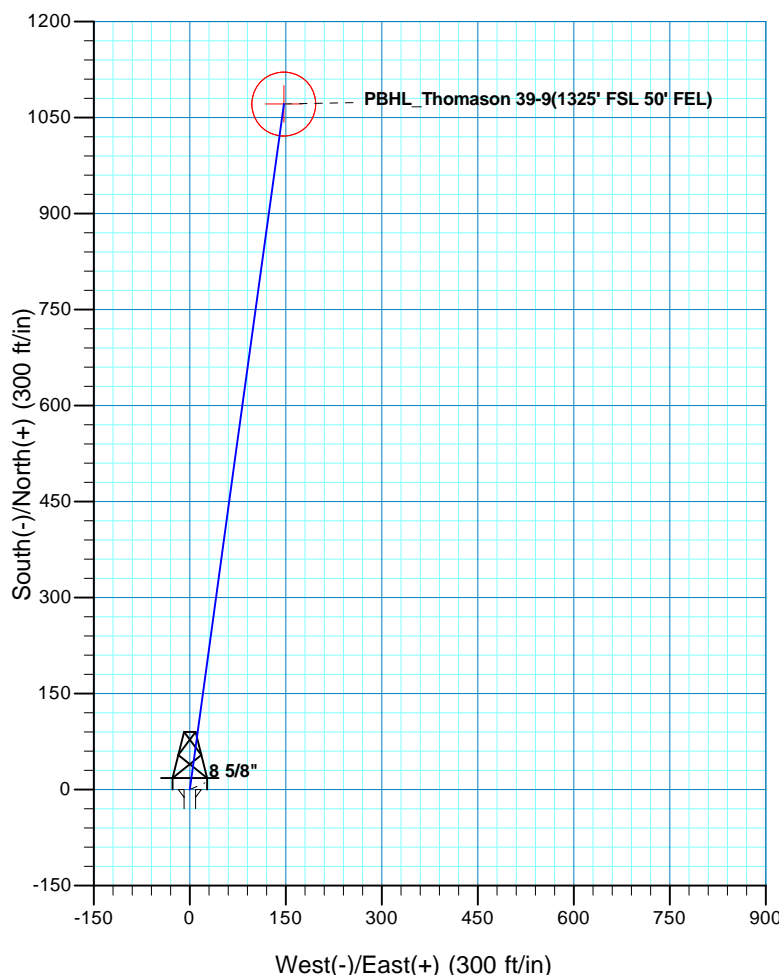
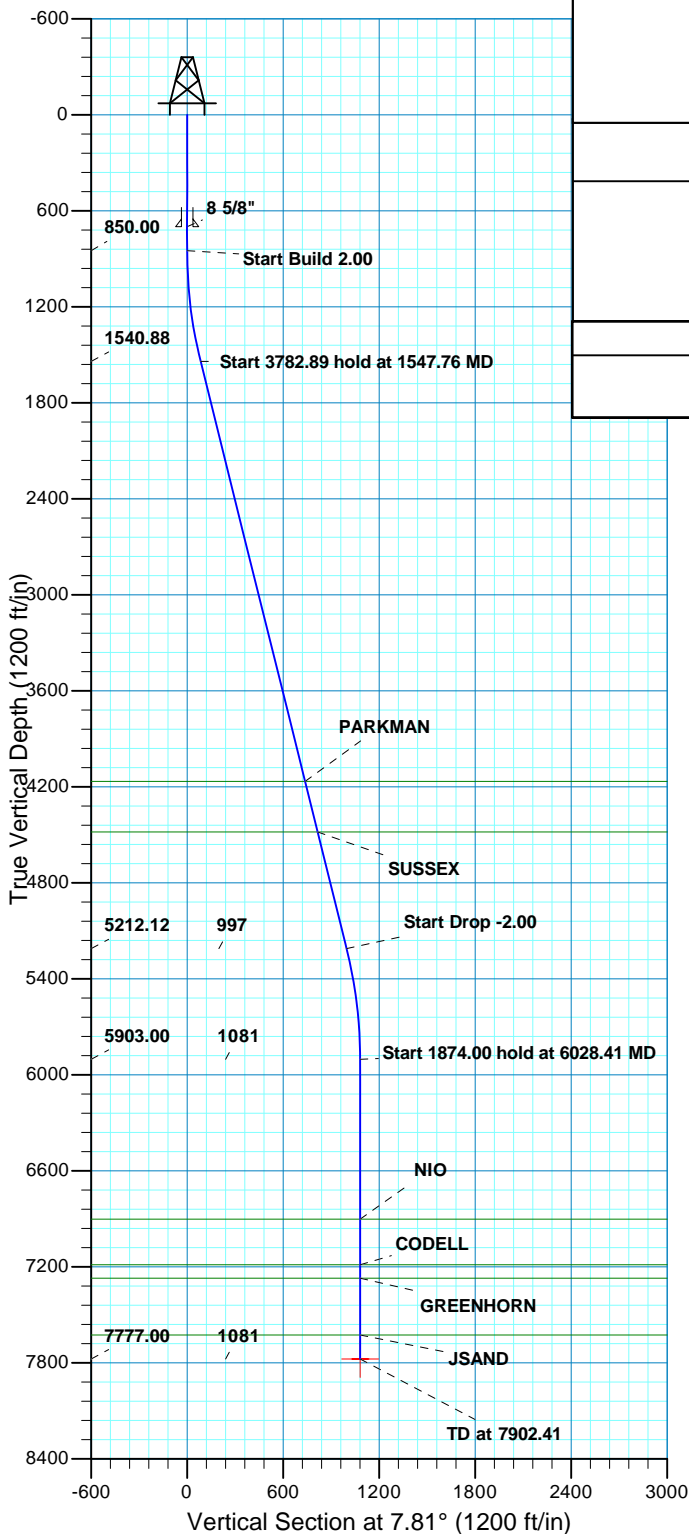


WELL DETAILS: P_Thomason 39-9					
GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1297390.82	3234745.27	40° 8' 48.051 N	104° 39' 36.954 W

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	7777.00	1071.36	147.04	1298463.53	3234882.16	40° 8' 58.639 N	104° 39' 35.060 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		
1547.76	13.96	7.81	1540.88	83.77	11.50	2.00	7.81	84.56		
5330.65	13.96	7.81	5212.12	987.59	135.54	0.00	0.00	996.85		
6028.41	0.00	0.00	5903.00	1071.36	147.04	2.00	180.00	1081.40		
7902.41	0.00	0.00	7777.00	1071.36	147.04	0.00	0.00	1081.40	PBHL_Thomason 39-9(1325' FSL 50' FEL)	
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: SECTION 9 T2NR65W System Datum: Mean Sea Level						FORMATION TOP DETAILS				
						TVDPath	MDPath	Formation		
						4167.00	4253.75	PARKMAN		
						4483.00	4579.36	SUSSEX		
						6903.00	7028.41	NIO		
						7187.00	7312.41	CODELL		
						7271.00	7396.41	GREENHORN		
						7627.00	7752.41	JSAND		
CASING DETAILS										
No casing data is available										



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Thomason 16-9 Pad

P_Thomason 39-9

P_Thomason 39-9

Plan: PLAN #1 9-13-10 RHS

Standard Planning Report

13 September, 2010

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Thomason 39-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)
Site:	WELD_Thomason 16-9 Pad	North Reference:	True
Well:	P_Thomason 39-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Thomason 39-9		
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_Thomason 16-9 Pad, SECTION 9 T2NR65W		
Site Position:		Northing:	1,297,390.68 usft
From:	Lat/Long	Easting:	3,234,729.34 usft
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in
		Grid Convergence:	0.54 °

Well	P_Thomason 39-9, 254' FSL 176' FEL		
Well Position	+N/-S	-0.01 ft	Northing: 1,297,390.82 usft
	+E/-W	15.93 ft	Easting: 3,234,745.27 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	Latitude: 40° 8' 48.052 N
			Longitude: 104° 39' 36.954 W
			Ground Level: 4,867.00 ft

Wellbore	P_Thomason 39-9				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/01/2010	8.91	66.90	53,110

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	7.81

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	
1,547.76	13.96	7.81	1,540.88	83.77	11.50	2.00	2.00	0.00	7.81	
5,330.65	13.96	7.81	5,212.12	987.59	135.54	0.00	0.00	0.00	0.00	
6,028.41	0.00	0.00	5,903.00	1,071.36	147.04	2.00	-2.00	0.00	180.00	
7,902.41	0.00	0.00	7,777.00	1,071.36	147.04	0.00	0.00	0.00	0.00	PBHL_Thomason 39-

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Thomason 39-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)
Site:	WELD_Thomason 16-9 Pad	North Reference:	True
Well:	P_Thomason 39-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Thomason 39-9		
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	
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	
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	7.81	900.00	0.43	0.06	0.44	2.00	2.00	0.00	
1,000.00	3.00	7.81	999.93	3.89	0.53	3.93	2.00	2.00	0.00	
1,100.00	5.00	7.81	1,099.68	10.80	1.48	10.90	2.00	2.00	0.00	
1,200.00	7.00	7.81	1,199.13	21.16	2.90	21.35	2.00	2.00	0.00	
1,300.00	9.00	7.81	1,298.15	34.94	4.80	35.27	2.00	2.00	0.00	
1,400.00	11.00	7.81	1,396.63	52.15	7.16	52.63	2.00	2.00	0.00	
1,500.00	13.00	7.81	1,494.44	72.74	9.98	73.42	2.00	2.00	0.00	
1,547.76	13.96	7.81	1,540.88	83.77	11.50	84.56	2.00	2.00	0.00	
Start 3782.89 hold at 1547.76 MD										
1,600.00	13.96	7.81	1,591.58	96.25	13.21	97.15	0.00	0.00	0.00	
1,700.00	13.96	7.81	1,688.63	120.14	16.49	121.27	0.00	0.00	0.00	
1,800.00	13.96	7.81	1,785.68	144.04	19.77	145.39	0.00	0.00	0.00	
1,900.00	13.96	7.81	1,882.73	167.93	23.05	169.50	0.00	0.00	0.00	
2,000.00	13.96	7.81	1,979.77	191.82	26.33	193.62	0.00	0.00	0.00	
2,100.00	13.96	7.81	2,076.82	215.71	29.61	217.74	0.00	0.00	0.00	
2,200.00	13.96	7.81	2,173.87	239.61	32.88	241.85	0.00	0.00	0.00	
2,300.00	13.96	7.81	2,270.92	263.50	36.16	265.97	0.00	0.00	0.00	
2,400.00	13.96	7.81	2,367.97	287.39	39.44	290.08	0.00	0.00	0.00	
2,500.00	13.96	7.81	2,465.02	311.28	42.72	314.20	0.00	0.00	0.00	
2,600.00	13.96	7.81	2,562.06	335.17	46.00	338.32	0.00	0.00	0.00	
2,700.00	13.96	7.81	2,659.11	359.07	49.28	362.43	0.00	0.00	0.00	
2,800.00	13.96	7.81	2,756.16	382.96	52.56	386.55	0.00	0.00	0.00	
2,900.00	13.96	7.81	2,853.21	406.85	55.84	410.67	0.00	0.00	0.00	
3,000.00	13.96	7.81	2,950.26	430.74	59.12	434.78	0.00	0.00	0.00	
3,100.00	13.96	7.81	3,047.31	454.64	62.40	458.90	0.00	0.00	0.00	
3,200.00	13.96	7.81	3,144.36	478.53	65.68	483.01	0.00	0.00	0.00	
3,300.00	13.96	7.81	3,241.40	502.42	68.95	507.13	0.00	0.00	0.00	
3,400.00	13.96	7.81	3,338.45	526.31	72.23	531.25	0.00	0.00	0.00	
3,500.00	13.96	7.81	3,435.50	550.21	75.51	555.36	0.00	0.00	0.00	
3,600.00	13.96	7.81	3,532.55	574.10	78.79	579.48	0.00	0.00	0.00	
3,700.00	13.96	7.81	3,629.60	597.99	82.07	603.60	0.00	0.00	0.00	
3,800.00	13.96	7.81	3,726.65	621.88	85.35	627.71	0.00	0.00	0.00	
3,900.00	13.96	7.81	3,823.69	645.77	88.63	651.83	0.00	0.00	0.00	
4,000.00	13.96	7.81	3,920.74	669.67	91.91	675.94	0.00	0.00	0.00	
4,100.00	13.96	7.81	4,017.79	693.56	95.19	700.06	0.00	0.00	0.00	
4,200.00	13.96	7.81	4,114.84	717.45	98.47	724.18	0.00	0.00	0.00	
4,253.75	13.96	7.81	4,167.00	730.29	100.23	737.14	0.00	0.00	0.00	
PARKMAN										
4,300.00	13.96	7.81	4,211.89	741.34	101.75	748.29	0.00	0.00	0.00	
4,400.00	13.96	7.81	4,308.94	765.24	105.02	772.41	0.00	0.00	0.00	
4,500.00	13.96	7.81	4,405.99	789.13	108.30	796.53	0.00	0.00	0.00	

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Thomason 39-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)
Site:	WELD_Thomason 16-9 Pad	North Reference:	True
Well:	P_Thomason 39-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Thomason 39-9		
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)
4,579.36	13.96	7.81	4,483.00	808.09	110.91	815.66	0.00	0.00	0.00
SUSSEX									
4,600.00	13.96	7.81	4,503.03	813.02	111.58	820.64	0.00	0.00	0.00
4,700.00	13.96	7.81	4,600.08	836.91	114.86	844.76	0.00	0.00	0.00
4,800.00	13.96	7.81	4,697.13	860.80	118.14	868.87	0.00	0.00	0.00
4,900.00	13.96	7.81	4,794.18	884.70	121.42	892.99	0.00	0.00	0.00
5,000.00	13.96	7.81	4,891.23	908.59	124.70	917.11	0.00	0.00	0.00
5,100.00	13.96	7.81	4,988.28	932.48	127.98	941.22	0.00	0.00	0.00
5,200.00	13.96	7.81	5,085.32	956.37	131.26	965.34	0.00	0.00	0.00
5,300.00	13.96	7.81	5,182.37	980.27	134.54	989.46	0.00	0.00	0.00
5,330.65	13.96	7.81	5,212.12	987.59	135.54	996.85	0.00	0.00	0.00
Start Drop -2.00									
5,400.00	12.57	7.81	5,279.62	1,003.35	137.70	1,012.76	2.00	-2.00	0.00
5,500.00	10.57	7.81	5,377.58	1,023.22	140.43	1,032.81	2.00	-2.00	0.00
5,600.00	8.57	7.81	5,476.19	1,039.68	142.69	1,049.43	2.00	-2.00	0.00
5,700.00	6.57	7.81	5,575.31	1,052.73	144.48	1,062.60	2.00	-2.00	0.00
5,800.00	4.57	7.81	5,674.83	1,062.34	145.80	1,072.30	2.00	-2.00	0.00
5,900.00	2.57	7.81	5,774.63	1,068.51	146.65	1,078.52	2.00	-2.00	0.00
6,000.00	0.57	7.81	5,874.59	1,071.22	147.02	1,081.26	2.00	-2.00	0.00
6,028.41	0.00	0.00	5,903.00	1,071.36	147.04	1,081.40	2.00	-2.00	0.00
Start 1874.00 hold at 6028.41 MD									
6,100.00	0.00	0.00	5,974.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
6,200.00	0.00	0.00	6,074.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
6,300.00	0.00	0.00	6,174.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
6,400.00	0.00	0.00	6,274.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
6,500.00	0.00	0.00	6,374.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
6,600.00	0.00	0.00	6,474.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
6,700.00	0.00	0.00	6,574.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
6,800.00	0.00	0.00	6,674.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
6,900.00	0.00	0.00	6,774.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,000.00	0.00	0.00	6,874.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,028.41	0.00	0.00	6,903.00	1,071.36	147.04	1,081.40	0.00	0.00	0.00
NIO									
7,100.00	0.00	0.00	6,974.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,200.00	0.00	0.00	7,074.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,300.00	0.00	0.00	7,174.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,312.41	0.00	0.00	7,187.00	1,071.36	147.04	1,081.40	0.00	0.00	0.00
CODELL									
7,396.41	0.00	0.00	7,271.00	1,071.36	147.04	1,081.40	0.00	0.00	0.00
GREENHORN									
7,400.00	0.00	0.00	7,274.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,500.00	0.00	0.00	7,374.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,600.00	0.00	0.00	7,474.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,700.00	0.00	0.00	7,574.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,752.41	0.00	0.00	7,627.00	1,071.36	147.04	1,081.40	0.00	0.00	0.00
JSAND									
7,800.00	0.00	0.00	7,674.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,900.00	0.00	0.00	7,774.59	1,071.36	147.04	1,081.40	0.00	0.00	0.00
7,902.41	0.00	0.00	7,777.00	1,071.36	147.04	1,081.40	0.00	0.00	0.00
PBHL_Thomason 39-9(1325' FSL 50' FEL)									

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well P_Thomason 39-9
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 4867' & RKB 15' @ 4882.00ft (ASSUMED)
Site:	WELD_Thomason 16-9 Pad	North Reference:	True
Well:	P_Thomason 39-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_Thomason 39-9		
Design:	PLAN #1 9-13-10 RHS		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
PBHL_Thomason 39-9(0.00	0.00	7,777.00	1,071.36	147.04	1,298,463.52	3,234,882.16	40° 8' 58.639 N	104° 39' 35.060 W
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
4,253.75	4,167.00	PARKMAN				
4,579.36	4,483.00	SUSSEX				
7,028.41	6,903.00	NIO				
7,312.41	7,187.00	CODELL				
7,396.41	7,271.00	GREENHORN				
7,752.41	7,627.00	JSAND				

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
850.00	850.00	0.00	0.00	Start Build 2.00
1,547.76	1,540.88	83.77	11.50	Start 3782.89 hold at 1547.76 MD
5,330.65	5,212.12	987.59	135.54	Start Drop -2.00
6,028.41	5,903.00	1,071.36	147.04	Start 1874.00 hold at 6028.41 MD
7,902.41	7,777.00	1,071.36	147.04	TD at 7902.41