



US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_BRYANT 37-30 PAD

P_BRYANT 23-30

P_BRYANT 23-30

Plan: PLAN #1 4-9-10 RHS

Standard Planning Report

09 April, 2010





Project: COLORADO NORTHERN ZONE - 83
Site: WELD_BRYANT 37-30 PAD
Well: P_BRYANT 23-30
Wellbore: P_BRYANT 23-30
Section: SECTION 30 T2N R68W
SHL: 284 FSL 1344 FEL
Design: PLAN #1 4-9-10 RHS
Latitude: 40° 6' 11.001 N
Longitude: 105° 2' 29.969 W
GL: 4928.00
KB: WELL @ 4943.00ft (Original Well Elev)



Weatherford



Azimuths to True North
Magnetic North: 9.14°

Magnetic Field
Strength: 53068.1snT
Dip Angle: 66.80°
Date: 4/9/2010
Model: IGRF2010

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3810.00	3936.30	PARKMAN
4350.00	4506.83	SUSSEX
4780.00	4961.15	SHANNON
7230.00	7457.71	NIO A
7520.00	7747.71	CODELL
7590.00	7817.71	GRNHRN
7955.00	8182.71	JSAND

CASING DETAILS

TVD	MD	Name	Size
850.00	850.00	8 5/8"	8.62

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Annotation
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	Start Build 2.00
1891.52	18.83	308.14	1874.66	94.68	-120.60	2.00	308.14	153.33	Start 3624.68 hold at 1891.52 MD
5516.20	18.83	308.14	5305.34	817.15	-1040.80	0.00	0.00	1323.25	Start Drop -2.00
6457.71	0.00	0.00	6230.00	911.83	-1161.40	2.00	180.00	1476.58	Start 1875.00 hold at 6457.71 MD
8332.71	0.00	0.00	8105.00	911.83	-1161.40	0.00	0.00	1476.58	TD at 8332.71

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

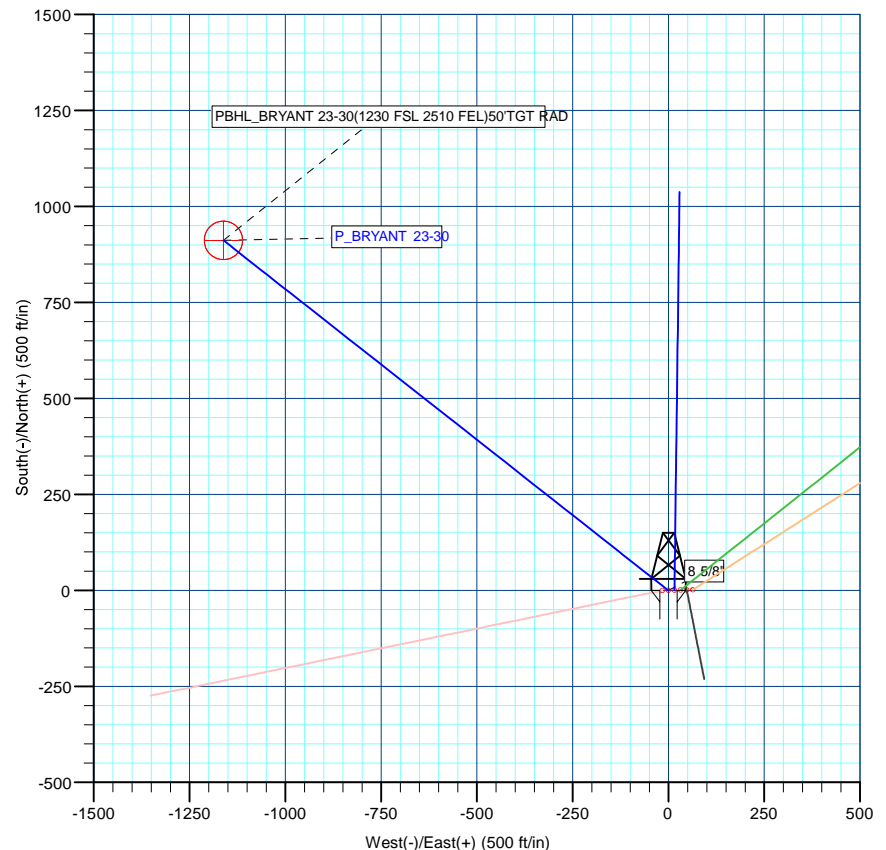
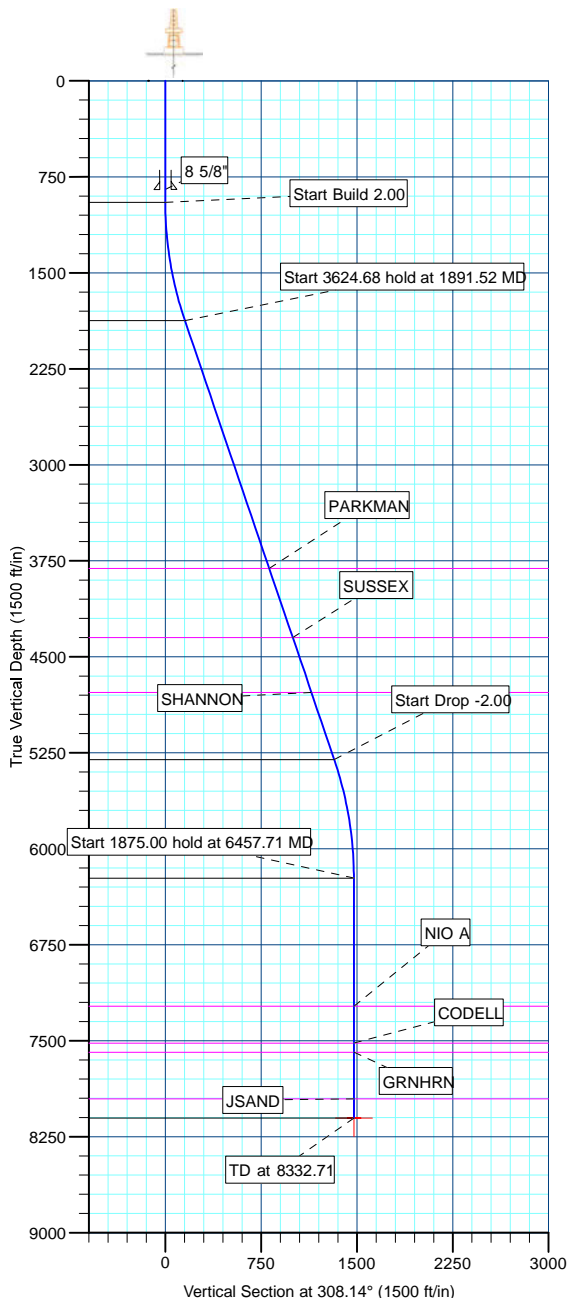
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8105.00	911.83	-1161.40	40° 6' 20.012 N	105° 2' 44.916 W	Circle (Radius: 50.00)

WELL DETAILS: P_BRYANT 23-30

+N/-S	+E/-W	Northing	Ground Level:	4928.00	Latitude	Longitude	Slot
0.00	0.00	1280718.98	Easting	3128211.55	40° 6' 11.001 N	105° 2' 29.969 W	

LEGEND

- P_BRYANT 16-30, P_BRYANT 16-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 20-30, P_BRYANT 20-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 33-29, P_BRYANT 33-29, PLAN #1 4-9-10 RHS V0
- P_BRYANT 36-30, P_BRYANT 36-30, PLAN #1 4-9-10 RHS V0
- P_BRYANT 37-30, P_BRYANT 37-30, PLAN #1 4-9-10 RHS V0
- PLAN #1 4-9-10 RHS



Created By: Robert H. Scott Date: 15:22, April 09 2010

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 23-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 23-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 23-30		
Design:	PLAN #1 4-9-10 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_BRYANT 37-30 PAD, SECTION 30 T2N R68W			
Site Position:		Northing:	1,280,720.26ft	Latitude:	40° 6' 11.012 N
From:	Lat/Long	Easting:	3,128,243.43ft	Longitude:	105° 2' 29.558 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.30 °

Well	P_BRYANT 23-30					
Well Position	+N/-S	-1.11 ft	Northing:	1,280,718.98 ft	Latitude:	40° 6' 11.001 N
	+E/-W	-31.89 ft	Easting:	3,128,211.55 ft	Longitude:	105° 2' 29.969 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,928.00 ft

Wellbore	P_BRYANT 23-30				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	4/9/2010	9.14	66.80	53,068

Design	PLAN #1 4-9-10 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	308.14

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	
1,891.52	18.83	308.14	1,874.66	94.68	-120.60	2.00	2.00	0.00	308.14	
5,516.20	18.83	308.14	5,305.34	817.15	-1,040.80	0.00	0.00	0.00	0.00	
6,457.71	0.00	0.00	6,230.00	911.83	-1,161.40	2.00	-2.00	0.00	180.00	
8,332.71	0.00	0.00	8,105.00	911.83	-1,161.40	0.00	0.00	0.00	0.00	PBHL_BRYANT 23

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well P_BRYANT 23-30
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 4943.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 23-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 23-30		
Design:	PLAN #1 4-9-10 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)
Start Build 2.00									
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	1.00	308.14	1,000.00	0.27	-0.34	0.44	2.00	2.00	0.00
1,100.00	3.00	308.14	1,099.93	2.42	-3.09	3.93	2.00	2.00	0.00
1,200.00	5.00	308.14	1,199.68	6.73	-8.57	10.90	2.00	2.00	0.00
1,300.00	7.00	308.14	1,299.13	13.19	-16.80	21.35	2.00	2.00	0.00
1,400.00	9.00	308.14	1,398.15	21.78	-27.74	35.27	2.00	2.00	0.00
1,500.00	11.00	308.14	1,496.63	32.50	-41.40	52.63	2.00	2.00	0.00
1,600.00	13.00	308.14	1,594.44	45.34	-57.75	73.42	2.00	2.00	0.00
1,700.00	15.00	308.14	1,691.46	60.28	-76.78	97.62	2.00	2.00	0.00
1,800.00	17.00	308.14	1,787.58	77.30	-98.46	125.18	2.00	2.00	0.00
Start 3624.68 hold at 1891.52 MD									
1,891.52	18.83	308.14	1,874.66	94.68	-120.60	153.33	2.00	2.00	0.00
1,900.00	18.83	308.14	1,882.69	96.38	-122.75	156.07	0.00	0.00	0.00
2,000.00	18.83	308.14	1,977.34	116.31	-148.14	188.34	0.00	0.00	0.00
2,100.00	18.83	308.14	2,071.98	136.24	-173.53	220.62	0.00	0.00	0.00
2,200.00	18.83	308.14	2,166.63	156.17	-198.91	252.90	0.00	0.00	0.00
2,300.00	18.83	308.14	2,261.28	176.10	-224.30	285.17	0.00	0.00	0.00
2,400.00	18.83	308.14	2,355.93	196.03	-249.69	317.45	0.00	0.00	0.00
2,500.00	18.83	308.14	2,450.58	215.97	-275.08	349.73	0.00	0.00	0.00
2,600.00	18.83	308.14	2,545.22	235.90	-300.46	382.00	0.00	0.00	0.00
2,700.00	18.83	308.14	2,639.87	255.83	-325.85	414.28	0.00	0.00	0.00
2,800.00	18.83	308.14	2,734.52	275.76	-351.24	446.56	0.00	0.00	0.00
2,900.00	18.83	308.14	2,829.17	295.69	-376.62	478.83	0.00	0.00	0.00
3,000.00	18.83	308.14	2,923.81	315.63	-402.01	511.11	0.00	0.00	0.00
3,100.00	18.83	308.14	3,018.46	335.56	-427.40	543.39	0.00	0.00	0.00
3,200.00	18.83	308.14	3,113.11	355.49	-452.79	575.66	0.00	0.00	0.00
3,300.00	18.83	308.14	3,207.76	375.42	-478.17	607.94	0.00	0.00	0.00
3,400.00	18.83	308.14	3,302.41	395.35	-503.56	640.22	0.00	0.00	0.00
3,500.00	18.83	308.14	3,397.05	415.28	-528.95	672.49	0.00	0.00	0.00
3,600.00	18.83	308.14	3,491.70	435.22	-554.33	704.77	0.00	0.00	0.00
3,700.00	18.83	308.14	3,586.35	455.15	-579.72	737.05	0.00	0.00	0.00
3,800.00	18.83	308.14	3,681.00	475.08	-605.11	769.32	0.00	0.00	0.00
3,900.00	18.83	308.14	3,775.65	495.01	-630.49	801.60	0.00	0.00	0.00
PARKMAN									
3,936.30	18.83	308.14	3,810.00	502.25	-639.71	813.31	0.00	0.00	0.00
4,000.00	18.83	308.14	3,870.29	514.94	-655.88	833.88	0.00	0.00	0.00
4,100.00	18.83	308.14	3,964.94	534.88	-681.27	866.15	0.00	0.00	0.00
4,200.00	18.83	308.14	4,059.59	554.81	-706.66	898.43	0.00	0.00	0.00
4,300.00	18.83	308.14	4,154.24	574.74	-732.04	930.71	0.00	0.00	0.00
4,400.00	18.83	308.14	4,248.88	594.67	-757.43	962.98	0.00	0.00	0.00
4,500.00	18.83	308.14	4,343.53	614.60	-782.82	995.26	0.00	0.00	0.00
SUSSEX									
4,506.83	18.83	308.14	4,350.00	615.96	-784.55	997.46	0.00	0.00	0.00
4,600.00	18.83	308.14	4,438.18	634.53	-808.20	1,027.54	0.00	0.00	0.00
4,700.00	18.83	308.14	4,532.83	654.47	-833.59	1,059.81	0.00	0.00	0.00
4,800.00	18.83	308.14	4,627.48	674.40	-858.98	1,092.09	0.00	0.00	0.00
4,900.00	18.83	308.14	4,722.12	694.33	-884.37	1,124.37	0.00	0.00	0.00
SHANNON									
4,961.15	18.83	308.14	4,780.00	706.52	-899.89	1,144.10	0.00	0.00	0.00
5,000.00	18.83	308.14	4,816.77	714.26	-909.75	1,156.64	0.00	0.00	0.00
5,100.00	18.83	308.14	4,911.42	734.19	-935.14	1,188.92	0.00	0.00	0.00
5,200.00	18.83	308.14	5,006.07	754.13	-960.53	1,221.20	0.00	0.00	0.00
5,300.00	18.83	308.14	5,100.72	774.06	-985.91	1,253.47	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 23-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 23-30		
Design:	PLAN #1 4-9-10 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)
5,400.00	18.83	308.14	5,195.36	793.99	-1,011.30	1,285.75	0.00	0.00	0.00
5,500.00	18.83	308.14	5,290.01	813.92	-1,036.69	1,318.03	0.00	0.00	0.00
Start Drop -2.00									
5,516.20	18.83	308.14	5,305.34	817.15	-1,040.80	1,323.25	0.00	0.00	0.00
5,600.00	17.15	308.14	5,385.04	833.13	-1,061.16	1,349.14	2.00	-2.00	0.00
5,700.00	15.15	308.14	5,481.09	850.31	-1,083.04	1,376.96	2.00	-2.00	0.00
5,800.00	13.15	308.14	5,578.05	865.41	-1,102.28	1,401.41	2.00	-2.00	0.00
5,900.00	11.15	308.14	5,675.80	878.42	-1,118.83	1,422.46	2.00	-2.00	0.00
6,000.00	9.15	308.14	5,774.23	889.30	-1,132.70	1,440.09	2.00	-2.00	0.00
6,100.00	7.15	308.14	5,873.22	898.06	-1,143.86	1,454.28	2.00	-2.00	0.00
6,200.00	5.15	308.14	5,972.63	904.68	-1,152.29	1,465.00	2.00	-2.00	0.00
6,300.00	3.15	308.14	6,072.37	909.15	-1,157.99	1,472.24	2.00	-2.00	0.00
6,400.00	1.15	308.14	6,172.29	911.48	-1,160.94	1,476.00	2.00	-2.00	0.00
Start 1875.00 hold at 6457.71 MD									
6,457.71	0.00	0.00	6,230.00	911.83	-1,161.40	1,476.58	2.00	-2.00	0.00
6,500.00	0.00	0.00	6,272.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
6,600.00	0.00	0.00	6,372.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
6,700.00	0.00	0.00	6,472.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
6,800.00	0.00	0.00	6,572.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
6,900.00	0.00	0.00	6,672.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,000.00	0.00	0.00	6,772.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,100.00	0.00	0.00	6,872.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,200.00	0.00	0.00	6,972.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,300.00	0.00	0.00	7,072.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,400.00	0.00	0.00	7,172.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
NIO A									
7,457.71	0.00	0.00	7,230.00	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,500.00	0.00	0.00	7,272.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,600.00	0.00	0.00	7,372.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,700.00	0.00	0.00	7,472.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
CODELL									
7,747.71	0.00	0.00	7,520.00	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,800.00	0.00	0.00	7,572.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
GRNHRN									
7,817.71	0.00	0.00	7,590.00	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
7,900.00	0.00	0.00	7,672.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
8,000.00	0.00	0.00	7,772.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
8,100.00	0.00	0.00	7,872.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
JSAND									
8,182.71	0.00	0.00	7,955.00	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
8,200.00	0.00	0.00	7,972.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
8,300.00	0.00	0.00	8,072.29	911.83	-1,161.40	1,476.58	0.00	0.00	0.00
PBHL_BRYANT 23-30(1230 FSL 2510 FEL)50'TGT RAD									
8,332.71	0.00	0.00	8,105.00	911.83	-1,161.40	1,476.58	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 4943.00ft (Original Well Elev)
Site:	WELD_BRYANT 37-30 PAD	North Reference:	True
Well:	P_BRYANT 23-30	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_BRYANT 23-30		
Design:	PLAN #1 4-9-10 RHS		

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
PBHL_BRYANT 23-30	0.00	0.00	8,105.00	911.83	-1,161.40	1,281,624.80	3,127,045.45	40° 6' 20.012 N	105° 2' 44.916 W
- plan hits target center									
- Circle (radius 50.00)									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
850.00	850.00	8 5/8"	8.62	11.00

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,936.30	3,810.00	PARKMAN			
4,506.83	4,350.00	SUSSEX			
4,961.15	4,780.00	SHANNON			
7,457.71	7,230.00	NIO A			
7,747.71	7,520.00	CODELL			
7,817.71	7,590.00	GRNHRN			
8,182.71	7,955.00	JSAND			

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
1,891.52	1,874.66	94.68	-120.60	Start 3624.68 hold at 1891.52 MD
5,516.20	5,305.34	817.15	-1,040.80	Start Drop -2.00
6,457.71	6,230.00	911.83	-1,161.40	Start 1875.00 hold at 6457.71 MD
8,332.71	8,105.00	911.83	-1,161.40	TD at 8332.71