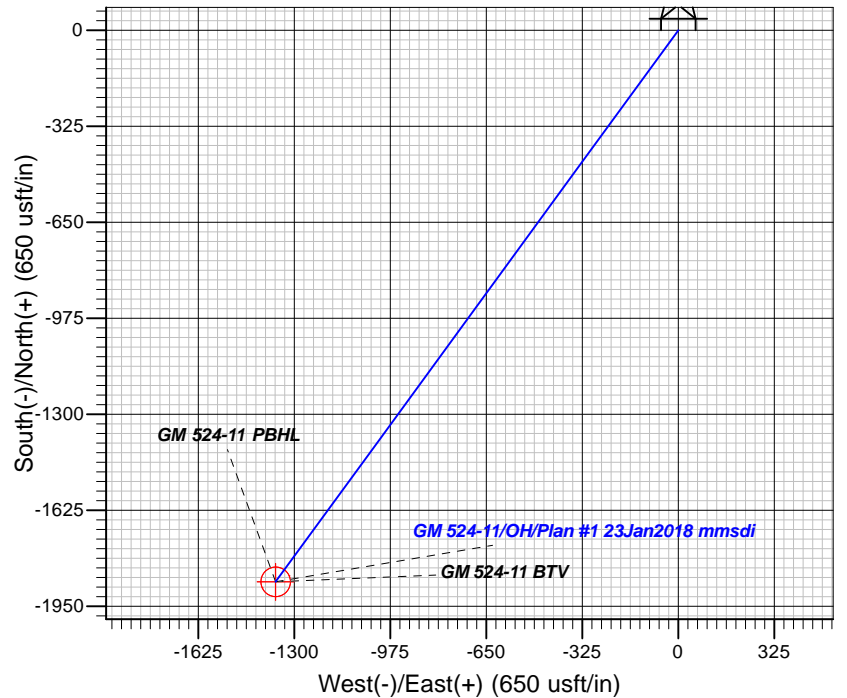
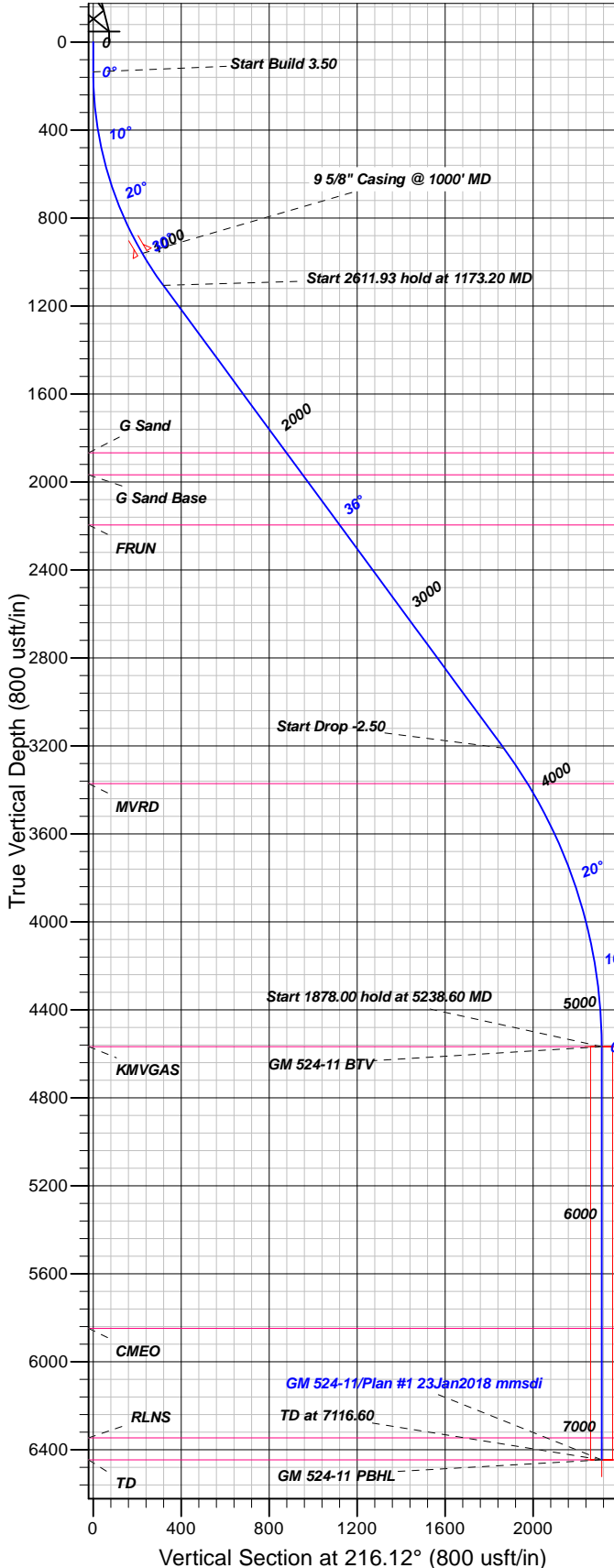


Well Details: GM 524-11

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1599202.65	2271937.17	39.4502120	-108.0786180	GM 524-11

GL 5793' & RKB 24' @ 5817.00usft



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1867.00	2119.15	G Sand
1967.00	2243.29	G Sand Base
2195.00	2526.33	FRUN
3371.00	3980.33	MVRD
4567.00	5238.60	KMVGAS
5848.00	6519.60	CMEQ
6345.00	7016.60	RLNS
6445.00	7116.60	TD

Plan: Plan #1 23Jan2018 mmsdi

10:40, January 30 2018
Created By: Mel Mireles

PROJECT DETAILS: Garfield County, CO NAD83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

CASING DETAILS

TVD	MD	Name	Size
960.31	1000.00	5/8" Casing @ 1000' MD	9.62

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	
3	1173.20	36.34	216.12	1104.99	-257.13	-187.66	3.50	216.12	318.32	
4	3785.12	36.34	216.12	3209.02	-1507.24	-1100.03	0.00	0.00	1865.97	
5	5238.60	0.00	0.00	4567.00	-1867.22	-1362.76	2.50	180.00	2311.62	GM 524-11 BTV
6	7116.60	0.00	0.00	6445.00	-1867.22	-1362.76	0.00	0.00	2311.62	GM 524-11 PBHL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
GM 524-11 BTV	4567.00	-1867.22	-1362.76	1597374.86	2270521.97	39.4450855	-108.0834436	Circle (Radius: 50.00)
- plan hits target center								
GM 524-11 PBHL	6445.00	-1867.22	-1362.76	1597374.86	2270521.97	39.4450855	-108.0834436	Point
- plan hits target center								



TEP Rocky Mountain LLC

Garfield County, CO NAD83

GR 23-11V Pad

GM 524-11 - Slot GM 524-11

OH

Plan: Plan #1 23Jan2018 mmsdi

Standard Planning Report

30 January, 2018



Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 524-11 - Slot GM 524-11
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 524-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 23Jan2018 mmsdi		

Project	Garfield County, CO NAD83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		GR 23-11V Pad			
Site Position:		Northing:	1,599,230.76 usft	Latitude:	39.4502880
From:	Map	Easting:	2,271,922.71 usft	Longitude:	-108.0786721
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-1.63 °

Well	GM 524-11 - Slot GM 524-11					
Well Position	+N/-S	-27.69 usft	Northing:	1,599,202.65 usft	Latitude:	39.4502120
	+E/-W	15.25 usft	Easting:	2,271,937.17 usft	Longitude:	-108.0786180
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,793.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/23/2018	9.47	65.70	51,724

Design	Plan #1 23Jan2018 mmsdi			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	216.12

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,173.20	36.34	216.12	1,104.99	-257.13	-187.66	3.50	3.50	0.00	216.12	
3,785.12	36.34	216.12	3,209.02	-1,507.24	-1,100.03	0.00	0.00	0.00	0.00	
5,238.60	0.00	0.00	4,567.00	-1,867.22	-1,362.76	2.50	-2.50	0.00	180.00	GM 524-11 BTV
7,116.60	0.00	0.00	6,445.00	-1,867.22	-1,362.76	0.00	0.00	0.00	0.00	GM 524-11 PBHL

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 524-11 - Slot GM 524-11
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 524-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 23Jan2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
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
135.00	0.00	0.00	135.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.50									
200.00	2.28	216.12	199.98	-1.04	-0.76	1.29	3.50	3.50	0.00
300.00	5.78	216.12	299.72	-6.71	-4.90	8.31	3.50	3.50	0.00
400.00	9.28	216.12	398.84	-17.29	-12.62	21.40	3.50	3.50	0.00
500.00	12.78	216.12	496.98	-32.73	-23.89	40.52	3.50	3.50	0.00
600.00	16.28	216.12	593.77	-52.99	-38.67	65.60	3.50	3.50	0.00
700.00	19.78	216.12	688.85	-77.98	-56.91	96.54	3.50	3.50	0.00
800.00	23.28	216.12	781.86	-107.61	-78.54	133.22	3.50	3.50	0.00
900.00	26.78	216.12	872.46	-141.77	-103.47	175.52	3.50	3.50	0.00
1,000.00	30.28	216.12	960.31	-180.34	-131.62	223.26	3.50	3.50	0.00
9 5/8" Casing @ 1000' MD									
1,100.00	33.78	216.12	1,045.07	-223.17	-162.88	276.28	3.50	3.50	0.00
1,173.20	36.34	216.12	1,104.99	-257.13	-187.66	318.32	3.50	3.50	0.00
Start 2611.93 hold at 1173.20 MD									
1,200.00	36.34	216.12	1,126.58	-269.96	-197.02	334.21	0.00	0.00	0.00
1,300.00	36.34	216.12	1,207.13	-317.82	-231.95	393.46	0.00	0.00	0.00
1,400.00	36.34	216.12	1,287.69	-365.68	-266.88	452.71	0.00	0.00	0.00
1,500.00	36.34	216.12	1,368.24	-413.54	-301.82	511.97	0.00	0.00	0.00
1,600.00	36.34	216.12	1,448.80	-461.40	-336.75	571.22	0.00	0.00	0.00
1,700.00	36.34	216.12	1,529.35	-509.26	-371.68	630.47	0.00	0.00	0.00
1,800.00	36.34	216.12	1,609.91	-557.13	-406.61	689.72	0.00	0.00	0.00
1,900.00	36.34	216.12	1,690.46	-604.99	-441.54	748.98	0.00	0.00	0.00
2,000.00	36.34	216.12	1,771.02	-652.85	-476.47	808.23	0.00	0.00	0.00
2,100.00	36.34	216.12	1,851.57	-700.71	-511.40	867.48	0.00	0.00	0.00
2,119.15	36.34	216.12	1,867.00	-709.88	-518.09	878.83	0.00	0.00	0.00
G Sand									
2,200.00	36.34	216.12	1,932.13	-748.57	-546.33	926.74	0.00	0.00	0.00
2,243.29	36.34	216.12	1,967.00	-769.29	-561.46	952.39	0.00	0.00	0.00
G Sand Base									
2,300.00	36.34	216.12	2,012.68	-796.43	-581.26	985.99	0.00	0.00	0.00
2,400.00	36.34	216.12	2,093.24	-844.30	-616.20	1,045.24	0.00	0.00	0.00
2,500.00	36.34	216.12	2,173.79	-892.16	-651.13	1,104.50	0.00	0.00	0.00
2,526.33	36.34	216.12	2,195.00	-904.76	-660.32	1,120.10	0.00	0.00	0.00
FRUN									
2,600.00	36.34	216.12	2,254.35	-940.02	-686.06	1,163.75	0.00	0.00	0.00
2,700.00	36.34	216.12	2,334.90	-987.88	-720.99	1,223.00	0.00	0.00	0.00
2,800.00	36.34	216.12	2,415.46	-1,035.74	-755.92	1,282.26	0.00	0.00	0.00
2,900.00	36.34	216.12	2,496.01	-1,083.61	-790.85	1,341.51	0.00	0.00	0.00
3,000.00	36.34	216.12	2,576.56	-1,131.47	-825.78	1,400.76	0.00	0.00	0.00
3,100.00	36.34	216.12	2,657.12	-1,179.33	-860.71	1,460.02	0.00	0.00	0.00
3,200.00	36.34	216.12	2,737.67	-1,227.19	-895.64	1,519.27	0.00	0.00	0.00
3,300.00	36.34	216.12	2,818.23	-1,275.05	-930.57	1,578.52	0.00	0.00	0.00
3,400.00	36.34	216.12	2,898.78	-1,322.91	-965.51	1,637.77	0.00	0.00	0.00
3,500.00	36.34	216.12	2,979.34	-1,370.78	-1,000.44	1,697.03	0.00	0.00	0.00
3,600.00	36.34	216.12	3,059.89	-1,418.64	-1,035.37	1,756.28	0.00	0.00	0.00
3,700.00	36.34	216.12	3,140.45	-1,466.50	-1,070.30	1,815.53	0.00	0.00	0.00
3,785.12	36.34	216.12	3,209.02	-1,507.24	-1,100.03	1,865.97	0.00	0.00	0.00
Start Drop -2.50									
3,800.00	35.96	216.12	3,221.03	-1,514.33	-1,105.21	1,874.75	2.50	-2.50	0.00
3,900.00	33.46	216.12	3,303.22	-1,560.33	-1,138.78	1,931.69	2.50	-2.50	0.00

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 524-11 - Slot GM 524-11
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 524-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 23Jan2018 mmsdi		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,980.33	31.46	216.12	3,371.00	-1,595.15	-1,164.19	1,974.81	2.50	-2.50	0.00
MVRD									
4,000.00	30.96	216.12	3,387.82	-1,603.39	-1,170.20	1,985.00	2.50	-2.50	0.00
4,100.00	28.46	216.12	3,474.67	-1,643.42	-1,199.42	2,034.56	2.50	-2.50	0.00
4,200.00	25.96	216.12	3,563.59	-1,680.36	-1,226.38	2,080.29	2.50	-2.50	0.00
4,300.00	23.46	216.12	3,654.42	-1,714.13	-1,251.03	2,122.10	2.50	-2.50	0.00
4,400.00	20.96	216.12	3,746.99	-1,744.67	-1,273.31	2,159.90	2.50	-2.50	0.00
4,500.00	18.46	216.12	3,841.12	-1,771.91	-1,293.20	2,193.64	2.50	-2.50	0.00
4,600.00	15.96	216.12	3,936.63	-1,795.82	-1,310.65	2,223.23	2.50	-2.50	0.00
4,700.00	13.46	216.12	4,033.35	-1,816.33	-1,325.62	2,248.63	2.50	-2.50	0.00
4,800.00	10.96	216.12	4,131.08	-1,833.42	-1,338.09	2,269.78	2.50	-2.50	0.00
4,900.00	8.46	216.12	4,229.63	-1,847.05	-1,348.04	2,286.66	2.50	-2.50	0.00
5,000.00	5.96	216.12	4,328.83	-1,857.19	-1,355.44	2,299.22	2.50	-2.50	0.00
5,100.00	3.46	216.12	4,428.49	-1,863.83	-1,360.29	2,307.43	2.50	-2.50	0.00
5,200.00	0.96	216.12	4,528.41	-1,866.96	-1,362.56	2,311.30	2.50	-2.50	0.00
5,238.60	0.00	0.00	4,567.00	-1,867.22	-1,362.76	2,311.62	2.50	-2.50	0.00
Start 1878.00 hold at 5238.60 MD - KMGAS - GM 524-11 BTV									
5,300.00	0.00	0.00	4,628.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
5,400.00	0.00	0.00	4,728.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
5,500.00	0.00	0.00	4,828.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
5,600.00	0.00	0.00	4,928.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
5,700.00	0.00	0.00	5,028.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
5,800.00	0.00	0.00	5,128.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
5,900.00	0.00	0.00	5,228.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,000.00	0.00	0.00	5,328.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,100.00	0.00	0.00	5,428.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,200.00	0.00	0.00	5,528.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,300.00	0.00	0.00	5,628.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,400.00	0.00	0.00	5,728.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,500.00	0.00	0.00	5,828.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,519.60	0.00	0.00	5,848.00	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
CMEO									
6,600.00	0.00	0.00	5,928.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,700.00	0.00	0.00	6,028.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,800.00	0.00	0.00	6,128.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
6,900.00	0.00	0.00	6,228.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
7,000.00	0.00	0.00	6,328.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
7,016.60	0.00	0.00	6,345.00	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
RLNS									
7,100.00	0.00	0.00	6,428.40	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
7,116.60	0.00	0.00	6,445.00	-1,867.22	-1,362.76	2,311.62	0.00	0.00	0.00
TD at 7116.60 - TD - GM 524-11 PBHL									

Database:	Grand Junction District	Local Co-ordinate Reference:	Well GM 524-11 - Slot GM 524-11
Company:	TEP Rocky Mountain LLC	TVD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Project:	Garfield County, CO NAD83	MD Reference:	GL 5793' & RKB 24' @ 5817.00usft
Site:	GR 23-11V Pad	North Reference:	True
Well:	GM 524-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 23Jan2018 mmsdi		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
GM 524-11 BTV - hit/miss target - Shape	0.00	0.00	4,567.00	-1,867.22	-1,362.76	1,597,374.86	2,270,521.97	39.4450855	-108.0834436
GM 524-11 PBHL - plan hits target center - Circle (radius 50.00)	0.00	0.00	6,445.00	-1,867.22	-1,362.76	1,597,374.86	2,270,521.97	39.4450855	-108.0834436

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,000.00	960.31	9 5/8" Casing @ 1000' MD	9.62	13.50

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,119.15	1,867.00	G Sand		0.00	0.00
2,243.29	1,967.00	G Sand Base		0.00	0.00
2,526.33	2,195.00	FRUN		0.00	0.00
3,980.33	3,371.00	MVRD		0.00	0.00
5,238.60	4,567.00	KMVGAS		0.00	0.00
6,519.60	5,848.00	CME0		0.00	0.00
7,016.60	6,345.00	RLNS		0.00	0.00
7,116.60	6,445.00	TD		0.00	0.00

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
135.00	135.00	0.00	0.00	Start Build 3.50
1,173.20	1,104.99	-257.13	-187.66	Start 2611.93 hold at 1173.20 MD
3,785.12	3,209.02	-1,507.24	-1,100.03	Start Drop -2.50
5,238.60	4,567.00	-1,867.22	-1,362.76	Start 1878.00 hold at 5238.60 MD
7,116.60	6,445.00	-1,867.22	-1,362.76	TD at 7116.60